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Go math chapter 3 grade 2

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Each issue is mentioned in step-by-step resolution. The concepts are very clear and included in an understandable way. Lesson 1: Multiply by Voltage Mind 2: Estimate Products Lesson 3: Investigate • Area Models and Partial Products Lesson 4: Multiply Using Partial Products Mid-Checkpoint Chapter Lesson 5: Multiply with Regrouping Lesson 6: Choose a Multiplication Method 7: Problem Solving • Multiply 2-Digit Numbers Review/Common Core Test – Page No. 149 Multiply by Dozens Choose a Method. Then find the product. Question 1. 16 × 60 to 960 Use the reduction and duplication strategy in half. Find half of 16: 16 ÷ 2 x 8. Multiply this number by 60: 8 × 60 to 480 Double this result: 2 × 480 to 960 Response: 960 Explanation: Use the reduction and duplication strategy in half. Find half of 16: 16 ÷ 2 x 8. Multiply this number by 60: 8 × 60 to 480 Double this result: 2 × 480 to 960 Question 2. 80 × 22 - _____ Answer: 1760 Explanation: By using the place value method, Multiply 80 x 22 You can think of 80 tens 80 x 22o (22 x 8) tens to 176 tens to 176 x 10 to 1760 80 x 22 x 1760 Questions 3. 30 × 52 a _____ Answer: 1560 Explanation: Use associative property You can think of 30 as 3 x 10 30 x 52 á (3 x 10) x 52 x 3 x 3 x (10 x 52) at 3 x 520 x 1560 30 x 52 x 1560 question 4. 60 × 20 - _____ Response: 1200 Explanation: 60 x 20 Use half of the half of the 60 reduction and duplication strategy to make the problem simpler 60/ 2 x 3 multiply 30 with 20 30 x 20 x 600 Double the 600 2 x 600 x 1200 60 x 20 to 1200 5. 40 × 35o _____ Response: 1400 Explanation: By using associative property 40 x 35 You can think of 40 as 4 x 10 40 x 35 ? (4 x 10) x 35 x 4 x (10 x 35) at 4 x 350 x 1400 40 x 35 to 1400 Question 6. 10 × 90 - _____ Answer: 900 Explanation: By using the place value method, Multiply 10 x 90 You can think of 90 as 9 tens 10 x 90o (10 x 9) tens to 90 tens to 10 x 90 x 900 from question 7. 31 × × • _____ Answer: 1,550 Explanation: Use the place value method to multiply 31 x 50 You can think of 50 as 5 tens 31 x 50 x 31 x 5 tens to 155 tens of 155 tens to 1,550 31 x 50 x 1,550 Troubleshooting 8. Kenny bought 20 packs of baseball cards. There are 12 cards in each pack. How many letters did Kenny buy? _____ Cards Answer: 240 Cards Explanation: From the given data, Kenny bought 20 packs of basketball cards There are 12 cards in each 12 x 20 card package Use associative property You can write 20 as 2 x 10 10 x 20 x 12 x (2 x 10) á (12 x 2) x 10 x (24) x 10 x 240 Kenny cards purchased 240 question cards 9. The Hart family drove 10 hours to their vacation spot. They drove an average of 48 miles every hour. How many miles did you drive? _____ Miles Response: 480 miles Explanation: Based on the data given, the Hart family drove 10 hours to their vacation spot The average speed per hour is 48 miles Total miles to 48 x 10 Use the reduction and duplication strategy Half of the 48 to make the simplest problem 48 /2 x 24 Multiply 24 with 10 x 24x 10 x 240 Double the value of 2 x 240 x 480 miles Total miles I drove by the family of fed up to 480 miles. Common Core – Page No. 150 Lesson Check Question 1. For the school game, 40 rows of chairs are established. There are 22 chairs in each row. How many chairs are there in total? Options: a. 800 a. 840 c. 880 d. 8,800 Response: c. 880 Explanation: According to the data given for school play, 40 rows of chairs are available. There are 22 chairs available in each row. Then the total chairs in the school game are 22 x 40 By using the place value method You can think of 40 as 4 tens 22 x 40 x 22 x 4 tens - 88 tens - 880 Total chairs at school are 880 Question 2. At West School, there are 20 classrooms. Each classroom has 20 students. How many students are there at West School? Options: a. 40 b. 400 c. 440 d. 4,000 Response: b. 400 Explanation: From the given data, Total classrooms in west school 20 Number of students per classroom 20 Then, Total students at West School 20 x 20 By using associative property you can think of 20 as 2 x 10 20 x 20 x 20 x 20 x (2 x 10) á (20 x 2) x 10 a(40) x 10 x 400 Total number of students in West School 400 Spiral Review Question 3. Alex has 48 stickers. This is 6 times the number of stickers Max has. How many stickers does Max have? Options: a. 6 b. 7 c. 8 d. 9 Answer: c. 8 Explanation: According to the give data, Alex has 48 stickers That means, X- 48 This is 6 times the number of stickers max. Question 4. Ali's dog weighs 8 times more than his cat. Together, the two pets weigh 54 pounds. How much does Ali's dog weigh? Options: a. 6 pounds b. 42 pounds c. 46 lbs d. Pounds Response: d. 48 lbs Explanation: From the given data, Ali's Cat Weight - X Ali's Dog Weight 8 times more than Ali Ali's • 8X Together, the weight of the two pets (X+8X) at 54 pounds at 9X at 54 pounds, X, 54/9 pounds, 6 pounds, then Ali's dog weight, 8X, 6 x 48 pounds. Question 5. Allison has 3 containers with 25 crayons in each. It also has 4 marker boxes with 12 markers in each box. He gives 10 crayons to a friend. How many crayons and markers does Allison have now? Options: a. 34 b. 113 c. 123 d. 133 Response: b. 113 Explanation: According to the given data, Allison has 3 containers with 25 crayons in each of x 3 x 25 x 75 Allison has 4 marker boxes with 12 markers in each box, And, 4 x 12, 48 Allison, gives 10 crayons to a friend from Z to 75-10 to 65 Now, the total number of crayons and markers with Allison - Y + Z - 48 + 65 to 113 Question 6. The state of Utah covers 82,144 square miles. The state of Montana covers 145,552 square miles. What is the total area of the two states? Options: a. 63,408 square miles b. 223,408 square miles c. 227,696 square miles d. 966,992 square miles Response: c. 227,696 square miles Explanation: From the data given, The state of Utah covers 82,144 square miles The state of Montana covers 145,552 square miles Then, total area of the two states 82,144 + 145,552 The total area of two states 227,696 square miles. Page No. 153 Question 1. To estimate the product of 62 and 28 per rounding, how would you round the factors? What would be the estimated product? About _____ Response: 1800 Explanation: By using rounding and mental math Estimate 62 x 28 First, around each factor 62 x 28 60 x 30 Use mental math 6 x 3 x 18 60 x 30 x 1800 So, estimated product of 62 and 28 to 1800 Calculate the product. Choose a method. Question 2. 96 × 34 Estimation: _____ Answer: 3000 Explanation: Use mental math and compatible numbers 96 x 34 100 x 30 Use mental math 1 x 30 x 30 100 x 30 x 3000 Question 3. 47 × $39 Estimate: $ _____ Answer: 2000 Explanation: Round to the nearest ten 47 x $39 50 x $40 50 x $4 x $200 50 x $40 to 2000 question 4. 78 × 72 Estimation: _____ Answer: 5600 Explanation: Use rounding and mental math Round each factor 78 x 72 80 x 70 Use mental math 8 x 7 x 56 80 x 70 to 5600 Question 5. 41 × 78 Estimation: _____ Answer: 3200 Explanation: Use compatible numbers and mental math 41 x 78 40 x 80 Use mental math 40 x 8 x 320 40 x 80 to 3200 Question 6. 51 × 73 Estimate: _____ Answer: 3500 Explanation: Round at ten 51 x 73 50 x 70 to 3500 question 7. 34 × 80 Estimation: _____ Response: 2400 Explanation: Round each factor 34 x 80 30 x 80 3 x 8 x 240 30 x 80 x 2400 Practice: Copy and resolve Estimate the product. Choose a method. Question 8. 61 × 31 Estimate: _____ Response: 1800 Explanation: Round at ten 61 x 31 60 x 30 to 1800 9. 52 × 68 Estimation: _____ Response: 3500 Explanation: Round each factor 52 x 68 50 x 70 Use of mental math 5 x 7 x 35 50 x 70 70 3500 Question 10. 26 × 44 Estimate: _____ Answer: 1200 Explanation: Round to the nearest tens 26 x 44 30 x 40 to 1200 Question 11. 57 × $69 Estimate: $ _____ Response: $4200 Explanation: Round each factor 57 x $69 60 x $70 Use mental math 6 x $7 x $42 60 x $70 to $4200 Find two possible factors for the estimated product. Question 12. 2,800 Type below: _____ Answer: 2800 Explanation: Consider 7 x 4 x 28 70 x 40 to 2800 Question 13. 8.100 Type below: _____ Answer: 8,100 Explanation: Let's take 9 x 9 x 81 90 x 90 to 8,100 questions 14. 5,600 Type below: _____ Answer: 5,600 Explanation: Consider 7 x 8 x 56 70 x 80 x 5,600 Question 15. 2,400 Type below: _____ Answer: 2,400 Explanation: Let's take 4 x 6 x 24 40 x 60 to 2400 or 3 x 8 x 24 30 x 80 to 2,400 questions 16. Parker runs for 35 minutes every day. It runs 5 days in week 1, 6 days in week 2, and 7 days in week 3. How many minutes are you running? About _____ Minutes Response: About 630 minutes Explanation: From the given data, Mr. Parker jogs by day 35 minutes Runs 5 days in the week 5 x 5 x 35 x 175 minutes 6 days in the week 2 x 6 x 35 x 210 minutes 7 days in the week 3 x 7 x 35 minutes 245 minutes Total jog minutes by Mr. Parker a week 1 + week 2 + week 3 x 175 + 210 + 245 x 630 minutes So, total jogging minutes by Mr. Parker 630 minutes Question 17. There are 48 accounts in one package. Candice purchased 4 packs of blue, 9 gold packs, 6 packs of red and 2 packs of silver beads. How many accounts did Candice buy? about _____ Pearls Response: About 1008 Accounts Explanation: Based on the data given, 48 beads are there in a package Candice bought 4 packs of blue beads 4 x 48 x 192 9 packs of gold beads 9 x 48 x 432 6 packs of red beads 6 x 48 x 288 2 silver bead packs 2 x 48 x 96 Total accounts purchased by Candice 192 + 432 + 288 + 96 to 1008 accounts So , total accounts purchased by Candice 1008. Page No. 154 Question 18. On average, the refrigerator door opens 38 times a day. Len has two refrigerators in his house. Based on this average, how many times in a 3-week period do the refrigerator doors open? about _____ times Response: about 1600 times Explanation: Of the data given, On average, it opens a refrigerator door per day 38 times the 3 week period 7 x 3 x 21 Then, opens a refrigerator door for 21 days 21 x 38 x 798 times Len has 2 refrigerators in your house Then two door refrigerators open for 21 days 2 x 798 x 1596 times So , in a refrigerator door of 3 – week of the week opens about 1600 times question 19. The cost of running a refrigerator is about $57 each year. will it have cost to run by the time I'm 15? About $ _____ Response: 1200 Explanation: According to data, The cost of running a refrigerator for each year $57 Cost to run a refrigerator at the time you are 15 years old $57 * * Round to the nearest tens $57 x 15 $60 x 20 Use mental math $6 x 2 x 12 $60 x 20 to 1200 Question 20. If Mel opens his refrigerator door 36 times a day, how many times will it open in April? Will the exact answer be greater than or less than the estimate? Explain. Write below: _____ Answer: 1200 Explanation: From the given data, Mel opens the door of his refrigerator per day 36 times Number of days in the month of April - 30 days Refrigerator door opened in the month of April - 36 * 30 Round factors 36 x 30 40 x 30 x 1200 Question 21. Represent a problem What question could you write for this answer? The estimated product of two numbers, which are not multiples of ten, is 2,800. Write below: _____ Answer: 2800 Explanation: Let's take 1. 38 × 21 ↓ ↓ 40 × 20 to 800 2,800 x 42 x 68 ↓ ↓ 40 x 70 to 2800, question 22. What is a reasonable estimate for the product? Enter the estimate. An estimate can be used more than once. 26 × 48 _____ 28 × 21 _____ 21 × 22 _____ 51 × 26 _____ Response: 25 x 50 x 1250 30 x 20 x 600 20 x 20 to 400 x 50 x 25 x 1250 Explanation: 26 x 488 -> 25 x 50 x 1250 28 x 21 -> 30 x 20 x 600 21 x 22 -> 20 x 20 to 400 51 x 26 -> 50 x 25 x 1250 Common Core – Page No. 155 Product Estimate Product the product. Choose a method. Question 1. 38 × 21 38 × 21 ↓ ↓ 40 × 20 800 Reply: 800 Explanation: 38 × 21 ↓ ↓ 40 × 20 800 Question 2. 63 × 19 Estimation: _____ Answer: 1200 Explanation: 63 x 19 60 x 20 x 1200 Estimated product of 63 x 19 x 1200 Question 3. 27 × $42 Estimate: $ _____ Answer: $1000 Explanation: 27 × $42 25 x $40 to $1000 Estimated product from 25 x $42 to $1000 Question 4. 73 × 67 Estimation: _____ Response: 4900 Explanation: 73 × 67 70 x 70 x 4900 Estimated product of 73 x 67 x 4900 Question 5. 37 × $44 Estimate:$ _____ Answer: $1600 Explanation: 37 × $44 40 x $40 to $1600 Estimated product from 37 x $44 to $1600 Question 6. 85 × 71 Estimation: _____ Response: 6300 Explanation: 85 × 71 90 x 70 x 6300 Estimated product from 85 x 71 to 6300 question 7. 88 × 56 Estimation: _____ Response: 4950 Explanation: 88 × 56 90 x 55 to 4950 Estimated product of 90 x 55 x 4950 Question 8. 97 × 13 Estimation: _____ Answer: 1,000 Explanation: 97 × 13 100 x 10 x 1,000 question 9. 92 × 64 Estimation: _____ Answer: 5850 Explanation: 92 × 64 90 x 65 to 5850 Troubleshooting Question 10. A dime has a diameter of about 18 millimetres. How many millimeters long would a row of 34 cents be? About _____ millimeters Response: about 600 millimeters Explanation: From the given data, A penny has a diameter of about 18 millimeters Then, 34 dimes in diameter at 18 * 34 18 x 34 20 x 30 x 600 Therefore, 34 cents have a diameter of about millimeters long Question 11. A half-dollar has a diameter of 31 millimetres. How many millimeters long would a row of 56 half dollars have? About _____ Millimintats Response: 1800 millimeters Explanation: According to the given data, A half – dollar has a diameter of about 31 millimeters Then, 56 half dollars in diameter at 31 * 56 31 * 56 30 * 60 So, 56 half dollar has a diameter of about 1800 millimeters long. Common Core – Page No. 156 Lesson Verification Question 1. What is the best estimate for product 43 × 68? Options: a. 3,500 b. 2,800 c. 2,400 d. 280 Answer: b. 2,800 Explanation: Round to the nearest tens 43 x 68 40 x 70 Use mental math 4 x 7 x 28 40 x 70 to 2800 Estimated product of 43 x 68 x 2800 Question 2. Marissa burns 93 calories every time she plays looking with her dog. Play to search with your dog once a day. How many calories will Marissa burn playing looking with her dog in 28 days? Options: a. 4,000 b. 2,700 c. 2,000 d. 270 Answer: b. 2,700 Explanation: From the given data, Marissa burned calories every time she plays to look with her dog 93 calories Then Marissa burned calories in 28 days while playing to look with her dog 28 x 93 Round to the nearest tens 28 x 93 30 x 90 Then , calories burned estimated at 28 days by Marissa 2700 Calorie Spiral Review Question 3. Use the model to find 3 × 126. Options: a. 368 b. 378 c. 468 d. 478 Answer: b. 378 Explanation: From the figure above, 3 x 126 x 3 x 100 + 3 x 20 + 3 x 6 x 300 + 60 + 18 to 378 3 x 126 x 378, question 4. A store sells a certain brand of jeans for $38. One day, the store sold six pairs of jeans from that brand. How much money did the store make selling the 6 pairs of jeans? Options: a. $188 b. $228 c. $248 d. $288 Answer: b. $228 Explanation: Based on the given data, One store sells a certain brand of jeans for rupees $38 A day, the store sold 6 pairs of jeans of that brand 6 x $38 6 x $38 $228 The total amount of 6 pairs of jeans $228 Question 5. The Gate Arch in St. Louis, Missouri, weighs about 20,000 tons. How much could be the exact number of tons that the Arc weighs? Options: a. 31,093 tonnes a. 25,812 tonnes c. 17,246 tonnes d. 14,096 tonnes Response: c. 17,246 tons Explanation: From the given data, The gateway arch in St.Louis, Missouri Peso, about 20,000 tons of available options, 17,246 tons is closer to 20,000 tons Then, the exact number of tons the Arc weighs 17,246 tons Question 6. What's another name for 23 ten grand? Options: a. 23,000,000 b. 2,300,000 c. 230,000 a.m. 23,000 Response: c. 230,000 Explanation: According to the data, Another name for 23 ten thousand to 23 x 10,000 to 230,000 Another name for 23 ten thousand to 2.30,000 Page No. 159 Find the product. Question 1. 16 × 16 × 19 - _____ Answer: 304 Explanation: 16 x 19 x 304 Question 2. 18 × 26 18 × 26 - _____ Answer: 468 Explanation: 200 + 160 + 60 + 48 to 468 Question 3. 27 × 39 27 × 39 - _____ Response: 1,053 1,053 600 + 210 + 180 +63 to 1053 Draw a model to represent the product. Then register the product. Question 4. 14 × 16 - _____ Answer: 224 Explanation: 100 + 40 + 60 + 24 x 224 Question 5. 23 × 25 to _____ Answer: 575 Explanation: 400 + 60 + 100 + 15 to 575 Question 6. Explain how partial modeling products can be used to find the largest products. Write below: _____ Answer: You can use mental math to find partial products and then find the sum of partial products. Explanation: Question 7. Emma bought 16 packs of rolls for a party. There were 12 rolls in a package. After the party there were 8 leftover rolls. How many rolls did you eat? Explain. _____ Rolls Response: 184 rolls were eaten Explanation: From the given data, Emma bought 16 roll packs for a party There were 12 rolls in a package Then, total rolls 16 x 12 x 192 100 + 60 + 20 + 12 x 192 After the party there were 8 rolls left then, total rolls eaten are 192 – 8 to 184 Page No. 160 Question 8. Jamal and Kim used different ways to solve 12 × 15 by using partial products. Whose answer is that? Whose answer is that? Explain your reasoning. Jamal work 100 + 20 + 10 x 130 Kim's Work 120 + 60 to 180 a. For the answer that is absurd, write an answer that makes sense. Write below: _____ Answer: a. Jamal's work does silly things. 100 + 20 + 50 + 10 x 180 makes sense question 8. B. Look at Kim's method. Can you think of another way Kim could use the model to find the product? Explain. Type below: _____ Answer: Another method: 12 x 15 10 x 12 to 120 5 x 12 to 60 120 + 60 x 180. Explanation: Kim follows another method to find 12 x 15 i.e. 100 + 50 to 150 20 + 10 to 30 Then, 150 + 30 x 180 12 x 15 to 180 Question 9. See the model at 8b. How would partial products change if the product was 22 × 15? Explain why you think the products have changed. Write below: _____ Answer: 330 Explanation: Following method 8b 22 x 15 to 330 200 + 100 to 300 + 10 x 30 Now, 300 + 30 to 330 Finally, 22 x 15 to 330 The factor of 15 is increased in the current problem. Therefore, the product also increases for 15 x 22. Common Core – Page Area Models No. 161 and Partial Products Draw a model to represent the product. Then register the product. Question 1. 13 × 42 Answer: Question 2. 18 × 34 to _____ Answer: 300 + 40 + 240 + 32 to 612 Question 3. 22 × 26 to _____ Answer: 400 + 120 + 40 + 12 to 572 Questions 4. 1 5 × 33 to _____ Answer: 300 + 30 + 150 + 15 x 495 Question 5. 23 × 29 to _____ Answer: 400 + 180 + 60 + 27 to 667 Question 6. 19 × 36 - _____ Response: 300 + 60 + 270 + 54 to 684 Solution Question 7. Sebastian made the following model to find product 17 × 24. Is your model correct? Explain. a. yes b. no Answer: b. No Explanation: 200 + 40 + 140 + 28 to 408 Question 8. Every student in Ms. Sike's kindergarten class has a box of colored pencils. Each box has Crayons. If there are 18 students in Ms. Sike's class, how many crayons are there in total? _____ crayons Response: 648 crayons Explanation: From the information given, Each student in the Ms.Sike kindergarten class has a box of crayon crayons in each box of 36 crayons Number of students in Mr.Sike class 18 students Total Crayons 18 x 36 300 + 60 + 240 + 48 to 648 Common Core – Page No. 162 Question 1. Which product represents the following model? Options: a. 161 b. 230 c. 340 d. 391 Answer: d. 391 Explanation: 200 + 30 + 140 + 21 to 391 17 x 23 to 391 Question 2. Which product represents the following model? Options: a. 219 b. 225 c. 244 d. 275 Answer: b. 225 Explanation: 130 + 20 + 65 + 10 to 225 15 x 15 to 225 Spiral Review Question 3. Mariah builds a table using square tiles. There are 12 rows of tiles and 30 tiles in each row. How many tiles does Mariah use? Options: a. 100 b. 180 c. 360 d. 420 Answer: c. 360 Explanation: From the given data, Mariah builds a table using square tiles Cuadrado contains 12 rows of tiles and 30 tiles in each row 12 x 30 12 x 30 x 360 tiles Total tiles used by Mariah 360 tiles Question 4. Trevor bakes 8 batches of cookies, with 14 cookies in each batch. Set aside 4 cookies from each batch for a cake sale and put the rest in a jar. How many cookies does Trevor put in the jar? Options: a. 112 b. 80 c. 50 d. 32 Response: b. 80 Explanation: According to the data given, Number of cookies baked by Trevor 8 lots Number of cookies in each batch 14 cookies So, total cookies 14 x 8 x 112 Trevor reserves 4 biscuits from each batch to bake 8 * 4 x 32 cookies come together for a remaining cookies saved by Trevor in a jar 112 – 32 x 80 So , 80 cookies are put in the jar by Trevor question 5. Li feeds her dog 3 cups of food every day. How many cups of food does your dog eat in 28 days? Options: a. 60 cups b. 70 cups c. 80 cups d. 90 cups Answer: c. 80 cups Explanation: According to the given data, Li feeds her dog per day 3 cups of food Then, Li feeds her dog for 28 days 3 x 28 x 84 cups of food So, Li feeds her dog with 84 cups of food in 28 days Question 6. What symbol makes the numeric phrase true? 4 x 0 to 0 Options: a. + b. – c. × d. ÷ Answer: c. × Explanation: 4 x 0 to 0 Page No. 165 Question 1. Find 24 × 34. _____ Answer: 816 Explanation: Question 2. 1 2 × 1 2 ——- _____ Answer: 144 Explanation: Question 3. 3 1 × 2 4 ——- _____ Answer: 744 Explanation: question 4. 2 5 × 4 3 ——- _____ Answer: 1,075 Explanation: Question 5. 3 7 × 2 4 ——- _____ Answer: 888 Explanation: question 6. 5 4 × 1 5 ——- _____ Answer: 810 Explanation: Question 7. 8 7 × 1 6 ——- _____ Response: 1,392 Explanation: 8. 6 2 × 5 6 ——- _____ Answer: 3,472 Explanation: question 9. 4 9 × 6 3 ——- _____ Response: 3,087 Explanation: Practice: Copy and Register the product. Question 10. 38 × 47 _____ Answer: 1,786 Explanation: question 11. 46 × 27 _____ Answer: 1,242 Explanation: question 12. 72 × 53 _____ Answer: 3,816 Explanation: question 13. 98 × 69 _____ Answer: 6,762 Explanation: question 14. 53 × 68 _____ Answer: 3,604 Explanation: Question 15. 76 × 84 _____ Answer: 6,384 Explanation: question 16. 92 × 48 _____ Answer: 4,416 Explanation: Question 17. 37 × 79 _____ Response: 2,923 Explanation: Algebra Abstract Reason Finds unknown digits. Complete the problem. Question 18. Write below: _____ Answer: 1,824 Explanation: Question 19. Write below: _____ Answer: 7,954 Explanation: Question 20. Write below: _____ Answer: 1,908 Explanation: Question 21. Write below: _____ Answer: 952 Explanation: Page No. 166 Use the image chart for 22–24. Question 22. Using graphics A fruit packing warehouse is sending 15 boxes of grapefruit to a store in Santa Rosa, California. What is the total weight of the shipment? _____ Pounds Answer: 1275 lbs Explanation: From the given data, A fruit packing warehouse is shipping 15 boxes of grapefruit to store in Santa Rose, California Grapefruit Weight per box 85 lbs Total shipping weight 85 x 15 Therefore, the total shipping weight 1275 pounds asks 23. How much less do 13 boxes of tangelos weigh than 18 boxes of mandarins? _____ Pounds Response: 450 lbs Explanation: Based on the data given, Tangelos weight per box of 90 pounds Then, the weight of the 13 boxes of tangelos 90 x 13 Y, the weight of the 18 boxes of tangelos at 90 x 18 1620 – 1170 to 450 Therefore, 13 boxes of tangelos weight are 450 pounds less than 18 boxes of tangelos weight Question 24. What is the weight of 12 boxes of oranges? _____ Pounds Answer: 1,080 lbs Explanation: The weight of oranges per box 90 pounds then, weight of 12 orange boxes 90 x 12 So, weight of 12 orange boxes 1,080 pounds Question 25. Every person in the United States eats about 65 fresh apples each year. By this estimate, how many apples do 3 families out of 4 eat each year? _____ Apples Answer: 780 apples Explanation: From the given data, Each person in the United States eats fresh apples per year 65 3 families of 4 people 3 x 4 x 12 people Then, the number of apples eats by 12 people 65 x 12 Therefore, the total number of apples eat per 12 people per year 780 Questions 26. Product 26 × 93 is greater than 25 × 93. How much bigger? Explain how you know it without multiplying. _____ Answer: The difference is 93 26 x 93 is a group more than 93 than 25 x 93 question 27. Margot wants to use partial products to find 22 × 17. Type the numbers in the boxes to display 22 × 17. Write below: _____ Answer: Explanation: 22 x 17 (20 + 2) x 17 x 17 + 2 x 17 20 x (10 + 7) + 2 x (10 + 7) (20 x 10) + (20 x 7) + (2 x 10) + (2 x 7) Common core (20 x 10) + (20 x 7) + (2 x 10) + (2 x 7) Common core (without core). 167 Multiply Partial Products Register the product. Question 1. 2 3 × 7 9 ——— 1, 4 0 0 2 1 0 1 8 0 + 2 7 ————1, 8 1 7 Response: 1, 8 1 7 Explanation: 2 3 × 7 9 ——— 1, 4 0 0 0 2 1 0 1 0 0 + 2 7 ————————————

for students from $26 x 22 Round to the nearest tens. 26 is about 30; 22 is about 20; Use mental math $3 x 2 x $6 $30 x 20 to $600 Then, the estimated total cost for travel for students from $600 Question 25. Titus wrote the following on the board. What's the unknown number? ______ Answer: 400 Explanation: An unknown number is 50 x 8 x 400 Question 26. What are the partial products that result from multiplying 15 × 32? Type below: __________ Answer: Partial products are 300, 150, 20, 10 Explanation: Partial products are 300, 150, 20, 10 Question 27. A city bus company sold 39 one-way tickets and 20 round-trip tickets from West Elmwood to East Elmwood. One-way tickets cost $14. Round-trip tickets cost $25. How much money did the bus company copy? $ ______ Response: $1,046 Explanation: Based on the given data, Number of one – one-way tickets sold by the city bus company 39 round-trip tickets from West Elmwood to East Elmwood 20 Cost of one – one-way tickets $14 Then cost 39 one-way tickets – one-way tickets: 39 x $14 $546 Cost of round-trip tickets : $25 Then, cost 20 round-trip tickets: $25 x 20 x $500 Total money raised by the city bus company: $546 + $500 to $1,046 Page No. 173 Question 1. Look at the problem. Complete the sentences. Multiply ____ and ____ to get 0. Multiply ____ and ____ to get 1,620. Add partial products. 0 + 1,620 __ __ _____ Answer: Multiply 27 and 0 to get 0. Multiply 27 and 6 to get 1,620. Add partial products. 0 + 1,620 x 1,620. Estimate. Then find the product. Question 2. 6 8 × 5 3 ——- Estimate: _________Producto: __________ Response: Estimate: 3,500 Product: 3,604 68 is closer to 70 and 53 is closer to 50 Estimation: 70 x 50 x 3,500 60 x 53 to 3180 8 x 53 to 424 3180 + 424 to 3604 Product 3,604 Question 3. 6 1 × 5 4 ——- Estimate: ______________ Product: __________ Response: Estimate: 3,000 Product: 3,294 Explanation: 61 is closer to 60 and54 is closer to 50 Estimation: 60 x 50 x 3,000 60 x 54 to 3240 1 x 54 x 54 3240 3240 54 - 3294 Product 3.294 Question 4. 9 0 × 2 7 ——- Estimation: ______________ Product: __________ Response: Estimate: 2,700 Product: 2,430 Explanation: 27 is closer to 30 Estimate: 90 x 30 x 2,700 90 x 27 x 2430 Product 2,430 Question 5. 3 0 × 4 7 ——- Estimation: ______________ Product: __________ Response: Estimate: 1,500 Product: 1,410 Explanation: 47 is closer to 50 Estimate: 30 x 50 x 1,500 30 x 47 x 1410 Product 1,410 Question 6. 7 8 × 5 6 ——- Estimate: ______________ Product: __________ Response: Estimate: 4,800 Product: 4,368 Explanation: 78 is closer to 80 and 56 is closer to 60 Estima :80 x 60 x 4,800 70 x 56 to 3920 8 x 56 to 448 3920 + 448 to 4368 Product 4,368 Question 7. 2 7 × 2 5 ——- Estimate: _________Producto: __________ Response: Estimate: 600 Product: 675 Explanation: 27 is closer to 30 and 25 is closer to 20 Estimate: 30 x 20 x 600 20 x 25 to 500 7 x 25 to 175 500 + 175 to 675 Product 675 Practice: Copy and resolve estimate. Then find the product. Question 8. 34 × 65 Estimation: ______________ Product: __________ Response: Estimate: 1,800 Product: 2,210 Explanation: 34 is closer to 30 and 65 is closer to 60 Estimate: 30 x 60 x 1,800 30 x 65 to 1950 4 x 65 to 260 1950 + 260 x 2210 Product 2,210 Question 9. 42 × $13 Estimate: $ _________ Product: $ _________ Response: Estimate: $400 Product: $546 Explanation: 42 is closer to 40 and 13 is closer to 10 Estimate: 40 x 10 x 400 40 x $13 to $520 2 x $13 x $26 $520 + $26 to $546 Product $546 Question 10. 60 × 17 Estimation: ______________________ Response: Estimate: 1,200 Product: 1,020 Explanation: 17 is closer to 20 Estimate: 60 x 20 x 1,200 60 x 17 x 1020 Product 1,020 Question 11. 62 × 45 Estimation: ______________ Product: __________ Response: Estimate: 2,400 Product: 2,790 Explanation: 62 is closer to 60 and 45 is closer to 40 Estimate: 60 x 40 x 2,400 60 x 45 to 2700 2 x 45 x 90 2700 + 90 x 2790 Product 2,790 Question 12. 57 × $98 Estimate: $ _________ Product: $ _________ Response: Estimate: 6,000 Product: 5,586 Explanation: 57 is closer to 60 and 98 is closer to 100 Estimate: 60 x 1 100 to 6,000 50 x 98 to 4900 7 x 98 x 686 4900 + 686 to 5586 Product 5,586 Look for a pattern algebra Write a rule for the pattern. Use the rule to find unknown numbers. Question 13. Rule _____________ Type below: _________ Answer: Explanation: 1 hour to 60 min Then, 5 hours at 5 x 60 at 300 min 10 hours at 10 x 60 to 600 min 15 hours at 15 x 60 x 900 min 20 hours at 20 x 60 to 1200 min 25 hours at 25 x 60 to 1500 min Question 14. The owners of a summer camp are buying new cots for their cabins. There are 16 cabins. Each cabin needs 6 cots. Each cot costs $92. How much will the new cribs cost? $ _______ $8,832 Explanation: According to the data given, owners pf a summer camp are buying new cots for their cabins Number of cabins 16 Each cabin needs 6 cots Then, total cots 16 x 6 x 96 Each cot cost - $92 Then, cost for total cots $ 92 x 96 92 is closer to 90 y y it is closer to 100 Estimation of 90 x 100 x 9,000 90 x 96 to 8640 2 x 96 to 192 8640 + 192 to 8832 Product 8,832 Question 15. A theater has 28 rows of 38 seats down and 14 rows of 26 seats upstairs. How many seats does the theater have? ______ Seats Response: 1,428 seats Explanation: According to the given data, A theater has 28 rows of 38 seats down, 28 x 38 x 1064 14 rows of 26 seats up, 14 x 26 to 364 Total number of seats, 1064 + 364 to 1,428 seats above, Page No. 174 Questions 166. Machine A can label 11 bottles in 1 minute. Machine B can label 12 bottles in 1 minute. How many bottles can both machines label in 15 minutes? A. What do you need to know? Write below: __________ Answer: number of bottles labeled by Machine A and Machine B in 15 minutes Question 16. B. What numbers will you use? Write below: __________ Answer: 15x 11 and 15 x 12 Question 16. C. Tell why you can use more than one operation to resolve the issue. Write below: __________ Answer: To find out the total number of bottles manufactured by both A&B machines Question 16. D. Solve the problem. Therefore, both machines can label ____ bottles in ____ minutes. Write below: __________ Answer: Machine A can label 11 bottles in 1 minute And then the number of bottles labeled by machine A in 15 minutes at 15 x 11 x 165 Machine B can label 12 bottles in 1 minute Then, number of bottles labeled by Machine B in 15 minutes at 15 x 12 x 180 Total bottles labeled by both machines in 15 minutes at 165 + 180 x 345 345 Question 17. Making sense of problems A toy company makes wooden blocks. A box has 85 blocks. How many blocks can contain 19 boxes? ______ Blocks Response: 1,615 blocks Explanation: From the given data, a toy company manufactures wooden blocks To carton has 85 blocks Then, number of blocks retained by 19 cardboard boxes at 19 x 85 to 1615 Total number of blocks held by 19 cardboard boxes at 1,615 questions 18. A company is packing boxes of candles. Each box can contain 75 candles. So far, 50 boxes have been packed, but only 30 boxes have been loaded into a truck. How many more candles are left to be loaded into the truck? ______ candles Response: 1,500 candles Explanation: According to the given data, A company is packing candle boxes Each box can contain 75 candles Then, number of candles that are kept in 50 cardboard boxes at 50 x 75 to 3750 30 candles have been loaded into a truck The remaining candles are loaded into truck 3750 – 2250 to 1,500 of question 19. Mr. Garcia's class raised money for an excursion to the zoo. There are 23 students in your class. The cost of the trip will be $17 for each student. What is the cost to all Explain how you found your answer. $ ______ Response: $391 Explanation: According to the data given, Mr. Garcia's class raised money for an excursion to the zoo Total number of students in its class 23 students Cost of the for each student $17 Then, total cost for all students from $17 x 23 to $391 Common Core – Page No. 175 Multiply with Regroup Estimate. Then find the product. Question 1. Estimate: 2,700 Thought: 87 is about 90 and 32 is about 30. 90 × 30 x 2,700 Response: 2,784 Explanation: Think: 87 is about 90 and 32 is about 30. 90 × 30 to 2,700 of Question 2. 7 3 × 2 8 ——— Estimate: ______ Product: _______ Response: Estimate: 2,100 Product: 2,044 Explanation: Estimate: 73 is close to 70; 28 is about 30. Therefore, 70 x 30 x 2,100. Product: Type 73 as 7 tens and 3. Multiply 28 times 3. 2 28 x 73 ———84 <– 3 x 28 Multiply 28 by 7 tens 5 28 x 73 ———1960 <– 70 x 28 Add partial products. 84 + 1960 x 2,044. Therefore, 73 x 28 x 2,044. Question 3. 4 8 × 3 8 ——— Estimate: ______ Product: _______ Response: Estimate: 2,000 Product: 1,824 Explanation: 48 is close to 50 and 38 is close to 40. Estimate: 50 × 40 x 2,000 40 x 38 to 1520 8 x 38 to 304 1520 + 304 to 1824. Product: 1,824 Question 4. 5 9 × 5 2 ——— Estimate: ______ Product: _______ Response: Estimate: 3,000 Product: 3,068 Explanation: 59 is close to 60 and 52 is close to 50. Estimate: 60 × 50 x 3,000 50 x 52 to 2600 9 x 52 to 468 2600 + 468 to 3068. Product: 3,068. Question 5. 8 4 × 4 0 ——— Estimate: ______ Product: _______ Response: Estimate: 3,200 Product: 3,360 Explanation: 84 is close to 80 and 40 is close to 40. Estimate: 80 × 40 x 3,200 80 x 40 x 3,200 4 x 40 x 160 3200 + 160 to 3,360. Product: 3,360. Question 6. 8 3 × 7 7 ——— Estimate: ______ Product: _______ Response: Estimate: 6,400 Product: 6,391 Explanation: 83 is about 80 and 77 is close to 80. Estimate: 80 × 80 x 6,400 80 x 77 to 6,160 3 x 77 to 231 6,160 + 231 to 6,391. Product: 6,391. Question 7. 9 1 × 1 9 ——— Estimate: ______ Product: _______ Response: Estimate: 1,800 Product: 1,729 Explanation: 91 is about 90 and 19 is about 20. Estimate: 90 × 20 x 1,800 90 x 19 to 1,710 1 x 19 to 19 1,710+ 19 to 1,729. Product: 1,729. Troubleshooting Question 8. Baseballs come in boxes of 84 baseballs. One team orders 18 boxes of baseballs. How many baseballs does the team ask for? _______ Baseball Answer: 1,512 Baseball Explanation: To find the total baseball, 84 x 18 80 x 18 x 1,440 4 x 18 x 72 84 x 18 x 1,512 Question 9. There are 16 tables in the school canteen. Each table can accommodate up to 22 students. How many students can sit at lunch at once? _______ Students Response: 352 students Explanation: Total students 16 x 22 10 x 22 x 220 6 x 22 x 132 220 + 132 to 352. 352 students can sit at lunch at once Common Core – Page No. 176 Lesson Verification Question 1. The art teacher has 48 boxes of pencils Colors. There are 64 crayons in each box. What is the best estimate of the number of crayons the art teacher has? Options: a. 2,400 b. 2,800 c. 3,000 a.d. 3,500 Response: c. 3,000 Explanation: 1. Total Total crayons 48 x 64 48 is close to 50; 64 is about 60 50 x 60 x 3,000. The art teacher has about 3,000 crayons. Question 2. A basketball team scored an average of 52 points in each of 15 games. How many points did the team score in total? Options: a. 500 a. 312 c. 780 d. 1,000 Response: c. 780 Explanation: Total Points 52 x 15 50 x 15 to 750 2 x 15 to 30 750 + 30 to 780. The basketball team scored 780 points in total. Spiral revision question 3. One Saturday, an orchard sold 83 bags of apples. There are 27 apples in each bag. What expression represents the total number of apples sold? Options: a. 16 + 6 + 56 + 21 b. 160 + 60 + 56 + 21 c. 160 + 60 + 560 + 21 d. 1,600 + 60 + 560 + 21 Response: d. 1,600 + 60 + 560 + 21 Explanation: Total number of apples sold 83 x 27 80 x 27 to 2,160 3 x 27 to 21 2,160 + 81 to 2,241. The total number of apples sold is 2,241. 16 + 6 + 56 + 21 x 99 not equal to 2,241 160 + 60 + 56 + 21 to 297 not equal to 2,241 160 + 60 + 560 + 21 to 801 not equal to 2,241 1,600 + 60 + 560 + 21 to 2,241 equal to 2,241 1,600 + 60 + 560 + 21 to 2,241 is correct. Question 4. Hannah has a grid of squares that has 12 rows with 15 squares in each row. She colors 5 rows of 8 squares in the middle of the blue grid. She colors the rest of the squares red. How many squares does Hannah color? Options: a. 40 b. 140 c. 180 d. 220 Response: b. 140 Explanation: Hannah has a grid of squares that has 12 rows with 15 squares in each row, 12 x 15 x 180. The grid of squares in blue is 5 x 8 x 40. The grid of the squares in red 180 – 40 x 140. Question 5. Gabriella has four times as many drafts as a Lioness. Leona has 8 drafts. How many drafts does Gabriella have? Options: a. 32 b. 24 c. 12 d. 2 Response: a. 32 Explanation: Gabriella has 4 x 8 x 32 drafts. Question 6. Phil's got three times as many rocks as Peter. Together, they have 48 rocks. How many more rocks does Phil have than Peter? Options: a. 36 a. 24 c. 16 d. 12 Answer: b. 24 Explanation: Phil has 3 times more rocks than Peter. Together, they have 48 rocks If Peter has x rocks, Phil has 3x rocks 3x + x 48. 4x x 48. x to 48/4 to 12. Peter's got 12 rocks. Phil has 3 x 12 x 36 rocks. Phil has 36 – 12 x 24 rocks more than Peter. Page No. 179 Question 1. Find the product. Estimation: ______ Product: _______ Response: Estimate: 1,500 Product: 1,566 Explanation: 54 x 29 Estimate: Think 54 is close to 50; 29 is about 30. 50 x 30 x 1,500 Product: 20 x 5 tens to 100 tens 20 x 4 to 80 about 9 x 5 tens at 45 tens 9 x 4 from 4 to 36. Add partial products. 1000 + 80 + 450 + 36 x 1,566. Estimate. Then choose a method to find the product. Question 2. 3 6 × 1 4 ——- Estimate: ______ Product: _______ Response: Estimate: 400 Product: 504 36 x 14 Estimation: Think 36 is about 40; 14 is about 10. 40 x 10 x 400 Product: 10 x 3 tens to 30 tens 10 x 6 to 60 about 4 x 3 tens to 12 tens 4 x 6 to 24. Add Add Products. 300 + 60 + 120 + 24 x 504. Question 3. 6 3 × 4 2 ——- Estimation: ______ Product: _______ Response: Estimate: 2,400 Product: 2646 Explanation: 63 x 42 Estimate: Think 63 is close to 60; 42 is about 40. 60 x 40 x 2400 Product: 40 x 6 tens to 240 tens 40 x 3 to 120 about 2 x 6 tens to 12 tens 2 x 3 tens 2 x 3 to 6. Add partial products. 2400 + 120 + 120 + 6 x 2646. Question 4. 8 4 × 5 3 ——- Estimation: ______ Product: _______ Response: Estimate: 4,000 Product: 4,452 Explanation: 84 x 53 Estimation: Thinking 84 is close to 80; 53 is about 50. 80 x 50 x 4,000 Product: 50 x 8 tens to 400 tens 50 x 4 to 200 one 3 x 8 tens to 24 tens 3 x 4 to 4 of 12. Add partial products. 4000 + 200 + 240 + 12 x 4,452. Question 5. 7 1 × 1 3 ——- Estimate: ______ Product: _______ Response: Estimate: 700 Product: 923 Explanation: 71 x 13 Estimation: Think 71 is about 70; 13 is about 10. 70 x 10 x 700 Product: 10 x 7 tens to 70 tens 10 x 10 about 3 x 7 tens to 21 tens 3 x 1 from 1 to 3 to 3. Add partial products. 700 + 10 + 210 + 3 x 923. Practice: Copy and resolve estimate. Find the product. Question 6. 29 × $82 Estimate: $ _______ Product: $ _______ Response: Estimate: $2,400 Product: $2,378 Explanation: 29 x $82 Estimate: Think 29 is about 30; $82 is close to $80. 30 x $80 to $2,400 Product: $80 x 2 tens at $160 tens of $80 x 9 those of $720 $2 x 2 tens of $4 tens of $2 x 9 those of $18. Add partial products. $1600 + $720 + $40 + $18 $2,378. Question 7. 57 × 79 Estimation: _______Producto: _______ Response: Estimate: 4,800 Product: 4,503 Explanation: 57 x 79 Estimate: Think 57 is close to 60; 79 is close to 80. 60 x 80 x 4,800 Product: 70 x 5 tens to 350 tens 70 x 7 to 490 9 x 5 tens, 45 tens, 9 x 7 to 63. Add partial products. 3500 + 490 + 450 + 63 x 4,503. Question 8. 80 × 27 Estimation: _______Producto: _______ Response: Estimate: 2,400 Product: 2,160 Explanation: 80 x 27 Estimate: Piensa 27 is close to 30. 30 x 80 x 2,400 Product: 20 x 8 tens to 160 tens 20 x 0 to 0 0 from 7 x 8 tens to 56 tens 7 x 0 tens to 0. Add partial products. 1600 + 0 + 560 + 0 x 2.160. Question 9. 32 × $75 Estimate: $ _______ Product: $ _______ Response: Estimate: $2,100 Product: $2,400 Explanation: 32 × $75 Estimate: Think 32 is about 30; $75 is close to $70. 30 x $70 to $2,100 Product: $70 x 3 tens at $210 tens of $70 x 2 about $140 $5 x 3 tens of $15 tens $5 x 2 from $2 to $10. Add partial products. $2100 + $140 + $150 + $10 to $2,400. Question 10. 55 × 48 Estimation: _______Producto: _______ Response: Estimate: 2,750 Product: 2,640 Explanation: 55 × 48 Estimate: Think 48 is about 50. 55 x 50 x 2,750 Product: 40 x 5 tens to 200 tens 40 x 5 to 200 one 8 x 5 40 tens 8 x 5 tens 8 x 5 to 40. Add partial products. 2000 + 200 + 400 + 40 x 2,640. Question 11. 19 × $82 Estimate: $ _______ Product: $ _______ Response: Estimate: $1,600 Product: Product: Explanation: 19 × $82 Estimate: Think 19 is about 20; $82 is close to $80. 20 x $80 to $1,600 Product: $80 x 1 tens of $80 tens of $80 x 9 those of $720 $2 x 1 tens of $2 tens $2 x 9 those of $18. Add partial products. $800 + $720 + $20 + $18 $1,558. Question 12. 25 × $25 Estimate: $ _______ Product: $ _______ Response: Estimate: $625 Product: $625 Explanation: 25 × $25 Estimate: 25 x $25 to $625 Product: $20 x 2 tens of $40 tens of $20 x 5 about $100 the $5 x 2 tens of $10 tens $5 x 5 those of $25. Add partial products. $400 + $100 + $100 + $25 $625. Question 13. 41 × 98 Estimation: _______Producto: _______ Response: Estimate: 4,000 Product: 4,018 Explanation: 41 × 98 Estimation: Think 41 is about 40; 98 is about 100. 40 x 100 x 4,000 Product: 90 x 4 tens to 360 tens 90 x 1 to 90 90 8 x 4 tens, 32 tens, 8 x 1 and 8. Add partial products. 3600 + 90 + 320 + 8 x 4.018. Identify algebra relationships Use mental math to find the number. Question 14. 30 × 14 to 420, so 30 × 15 to ______ Reply: 30 × 15 to 450 Explanation: 30 × 15 to 30 + 420 30 × 15 to 450 Questions 15. 25 × 12 to 300, so 25 × ______ to 350 Response: 25 x 14 x 350 Explanation: 25 × 12 to 300 For each next multiplication, the product value is increased by 25. 25 x 13 x 325. 25 x 14 x 350. Question 16. The city conservation manager bought 16 maple trees for $26 each. He paid with five $100 bills. How much change will the manager receive? Explain. $ ______ Answer: $84 Explanation: The city conservation manager bought 16 maple trees for $26 each from 16 x $26 to $416. He paid with five $100 bills from 5 x $100 to $500. The manager receives $500 – $416 to $84. Question 17. Each of group A's 25 students read for 45 minutes. Each of group B's 21 students read for 48 minutes. Which group did you read for more minutes? Explain. _________ Response: Group To read for more minutes than Group B. Explanation: Group A read for 25 x 45 x 1125 minutes. Group B read for 21 x 48 x 1008 minutes. Group A read for more minutes than Group B. Page No. 180 Question 18. Martin collects stamps. He counted 48 pages on his collector's album. The first 20 pages each have 35 stamps in 5 rows. The rest of the pages each have 54 stamps. How many labels does Martin have on his album? A. What do you need to know? Write below: _________ Answer: Total stamps on the first 20 pages + Total stamps on the remaining pages. Question 18. B. How will you use multiplication to find the number of stamps? Write below: _________ Answer: The first 20 pages each have 35 stamps in 5 rows. Therefore, 35 x 5 x 175 stamps. Question 18. C. Say why you could use the sum and the to help solve the problem. Write below: _________ Reply: As mentioned the number of stamps available on the first 20 pages and the number of stamps available on the rest of the pages. We need to add all pages to get 48 pages of stamps. Question 18. 18. Show the steps to resolve the issue. Write below: _________ Answer: Martin has 48 pages on his collector's album. The first 20 pages each have 35 stamps in 5 rows. Therefore, 35 x 5 x 175 stamps. The first 20 pages have 175 stamps. The rest of the pages each have 54 stamps. Therefore, the total stamps are 175 + 54 x 229 stamps. Question 18. E. Complete the sentences. Martin has a total of stamps _____ in the first 20 pages. There are _____ more pages after the first 20 pages on Martin's album. There are _____ stamps on the rest of the pages. There are _____ stamps on the album. Write below: _________ Answer: Martin has a total of __175___ stamps on the first 20 pages. There are __24___ more pages after the first 20 pages on Martin's album. There are __54___ stamps on the rest of the pages. There are ___229__ stamps on the album. Question 19. Select expressions that have the same product as 35 × 17. Check all that apply. Options: a. (30 × 10) + (30 × 7) + (5 × 10) + (5 × 7) b. (30 × 17) + (5 × 17) c. (35 × 30) + (35 × 5) + (35 × 10) + (35 × 7) d. (35 × 10) + (35 × 7) e. (35 × 10) + (30 × 10) + (5 × 10) + (5 × 7) f. (35 × 30) + (35 × 5) Response: a. (30 × 10 ×)100) + (30 × 7) + (5 × 10) + (5 × 7) b. (30 × 17) + (5 × 17) d. (35 × 10) + (35 × 7) Explanation : 35 × 17 30 x 10 x 300 30 x 7 x 210 5 x 10 to 50 5 x 7 x 35 300 + 210 + 50 + 35 x 595. a. (30 × 10) + (30 × 7) + (5 × 10) + (5 × 7) to 300 + 210 + 50 + 35 to 595, equal to 595. b. (30 × 17) + (5 × 17) to 510 + 85 to 595 equal to 595. c. (35 × 30) + (35 × 5) + (35 × 10) + (35 × 7) to 1050 + 175 + 350 + 245 to 1820 not equal to 595. d. (35 × 10) + (35 × 7) to 350 + 245 to 595 equal to 595 e. (35 × 10) + (30 × 10) + (5 × 10) + (5 × 7) to 350 + 300 + 50 + 35 to 735 not equal to 595. f. (35 × 30) + (35 × 5) to 1050 + 175 to 1,225 not equal to 595. Common Core – Page No. 181 Choose an estimate of the multiplication method. Then choose a method to find the product. Question 1. Estimate: 1,200 3 1 × 4 3 ——- 9 3 + 1, 2 4 0 ———— 1, 3 3 3 Answer: Estimate: 1,200 Product: 1, 3 3 3 Explanation: Estimate: 1,200 3 1 × 4 3 ——- 9 3 + 1, 2 4 0 ———— 1, 3 3 3 Question 2. 6 7 × 8 5 ——- Estimation: _____ Product: ______ Response: Estimate: 6,300 Product: 5,695 Explanation: Estimate: 67 is close to 70; 85 is close to 90. 70 x 90 x 6,300. Product: 67 x 85 80 x 6 tens at 480 tens 80 x 7 to 560 and 560 from 5 x 6 tens to 30 tens 5 x 7 to 35. Add partial products. 4800 + 560 + 300 + 35 x 5,695. Question 3. 6 8 × 3 8 ——- Estimation: _____ Product: ______ Response: Estimate: 2,800 Product: 2,584 Explanation: Estimate: 68 is close to 70; 38 is about 40. 70 x 40 x 2,800. Product: 68 x 38 30 x 6 tens at 180 tens 30 x 8 to 240 about 8 x 6 tens to 48 tens 8 x 8 of 64. partial products. 1800 + 240 + 480 + 64 x 2,584. Question 4. 9 5 × 1 7 ——- Estimate: _____ Product: ______ ______ ______ Estimate: 1,700 Product: 1,615 Explanation: Estimate: 95 is close to 100. 100 x 17 x 1,700. Product: 95 x 17 10 x 9 tens to 90 tens 10 x 5 to 50 about 7 x 9 tens at 63 tens 7 x 5 from 5 to 35. Add partial products. 900 + 50 + 630 + 35 x 1.615. Question 5. 4 9 × 5 4 ——- Estimation: _____ Product: ______ Response: Estimate: 2,500 Product: 2,646 Explanation: Estimate: 49 is close to 50; 54 is about 50. 50 x 50 x 2,500. Product: 49 x 54 50 x 4 tens at 200 tens 50 x 9 to 450 about 4 x 4 tens to 16 tens 4 x 9 from 9 to 36. Add partial products. 2000 + 450 + 160 + 36 x 2,646. Question 6. 9 1 × 2 6 ——- Estimation: _____ Product: ______ Response: Estimate: 2,700 Product: 2,366 Explanation: Estimate: 91 is close to 90; 26 is about 30. 90 x 30 x 2,700. Product: 49 x 54 20 x 9 tens to 180 tens 20 x 1 to 20 about 6 x 9 tens to 54 tens 6 x 1 from 1 to 6. Add partial products. 1800 + 20 + 540 + 6 x 2,366. Question 7. 8 2 × 1 9 ——- Estimation: _____ Product: ______ Response: Estimate: 1,600 Product: 1,558 Explanation: Estimate: 82 is close to 80; 19 is about 20. 80 x 20 x 1,600. Product: 82 x 19 10 x 8 tens to 80 tens 10 x 2 to 20 about 9 x 8 tens at 72 tens 9 x 2 from 2 to 18. Add partial products. 800 + 20 + 720 + 18 x 1,558. Question 8. 4 6 × 2 7 ——- Estimation: _____ Product: ______ Response: Estimate: 1,500 Product: 1,242 Explanation: Estimate: 46 is close to 50; 27 is about 30. 50 x 30 x 1,500. Product: 46 x 27 20 x 4 tens to 80 tens 20 x 6 to 120 about 7 x 4 tens to 28 tens 7 x 6 of 42. Add partial products. 800 + 120 + 280 + 42 x 1,242. Question 9. 4 1 × 3 3 ——- Estimation: _____ Product: ______ Response: Estimate: 1,200 Product: 1,353 Explanation: Estimate: 41 is close to 40; 33 is about 30. 40 x 30 x 1,200. Product: 41 x 33 30 x 4 tens to 120 tens 30 x 1 to 30 about 3 x 4 tens to 12 tens 3 x 1 of 1 to 3 of 3. Add partial products. 1200 + 30 + 120 + 3 x 1,353. Question 10. 9 7 × 1 3 ——- Estimate: _____ Product: ______ Response: Estimate: 1,300 Product: 1,261 Explanation: Estimate: 97 is close to 100. 100 x 13 x 1,300. Product: 97 x 13 10 x 9 tens to 90 tens 10 x 7 to 70 about 3 x 9 tens at 27 tens 3 x 7 from 7 to 21. Add partial products. 900 + 70 + 270 + 21 x 1,261. Question 11. 7 5 × 6 9 ——- Estimation: _____ Product: ______ Response: Estimate: 5,600 Product: 5,195 Explanation: Estimate: 75 is close to 80; 69 is close to 70. 80 x 70 x 5,600. Product: 75 x 69 60 x 7 tens at 420 tens 60 x 5 to 300 about 9 x 7 tens at 63 tens 9 x 5 to 45. Add partial products. 4200 + 300 + 630 + 45 x 5,195. Troubleshooting Question 12. A movie theater has 26 rows of seats. There are 18 seats in each row. How many seats are there in total? ______ Seats Response: Seats Explanation: 26 x 18 x 468 seats. 20 x 18 x 360 6 x 18 to 108 108+360 to 468. Question 13. Each class at Briarwood Elementary collected at least 54,54 during the food unit. If there are 29 classes in school, what was the fewest cans collected? ______ Cans Response: 1,566 cans Explanation: Each class at Briarwood Elementary collected at least 54 cans of food. If there are 29 classes in the school, the fewest cans collected is 54 x 29 x 1,566 cans. Common Core – Page No. 182 Lesson Verification Question 1. A choir needs new robes for each of its 46 singers. Each robe costs $32. What will be the total cost of the 46 robes? Options: a. $1,472 b. $1,372 c. $1,362 d. $230 Answer: a. $1,472 Explanation: 46 x $32 40 x $32 to $1,280 6 x $32 to $192 $1,280 + $192 to $1,472 Question 2. A wall on the side of a building consists of 52 rows of bricks with 44 bricks in each row. How many bricks make up the wall? Options: a. 3,080 b. 2,288 c. 488 d. 416 Response: b. 2,288 Explanation: 52 x 44 50 x 44 to 2,200 2 x 44 to 88 2,200 + 88 to 2,288. 2,288 bricks make up the wall. Spiral revision question 3. What expression shows how to multiply 4 × 362 using the place value and the expanded shape? Options: a. (4 × 3) + (4 × 6) + (4 × 2) b. (4 × 300) + (4 × 600) +(4 × 200) c. (4 × 300) + (4 × 60) + (4 × 20) d. (4 × 300) + (4 × 60) + (4 × 2) Answer: d. (4 × 300) + (4 × 60) + (4 × 2) Explanation: 4 × × × 300 <2> 362 to 1.4 48 a. (4 × 3) + (4 × 6) + (4 × 2) to 12 + 24 + 8 to 44 not equal to 1,448. b. (4 × 300) + (4 × 600) +(4 × 200) to 1200 + 2400 + 800 to 4,400 not equal to 1,448. c. (4 × 300) + (4 × 60) + (4 × 20) to 1200 + 240 + 80 to 1,520 not equal to 1,448. d. (4 × 300) + (4 × 60) + (4 × 2) to 1200 + 240 + 8 to 1,448, which equates to 1,448. Question 4. Use the following model. What is the product 4 x 492? Options: a. 16 + 36 + 8 to 60 b. 160 + 36 + 8 to 204 c. 160 + 360 + 8 x 528 d. 1.600 + 360 + 8 to 1.968 Answer: d. 1.600 + 360 + 8 x 1.968 Explanation: 1,600 + 360 + 8 x 1.968 Question 5. What is the sum 13,094 + 259,728? Options: a. 272.832 b. 272.822 c. 262.722 d. 262.712 Reply: c. 262.722 Explanation: 13,094 + 259,728 to 262.722 Question 6. During the 2008–2009 season, there were 801,372 people attending home hockey games in Philadelphia. There were 609,907 people attending home hockey games in Phoenix. How much more was home attendance in Philadelphia than in Phoenix that season? Options: a. 101,475 b. 191,465 c. 201,465 d. 202,465 Response: b. 191,465 Explanation: 801,372 – 609,907 - 191,465 Philadelphia attendance is 191,465 greater than in that Phoenix season. Page No. 185 Question 1. An average of 74 reports with bird count were delivered each day in June. An average of 89 were delivered each day in July. How many reports have been delivered during both months? (Track: There are 30 days in June and 31 days in July.) First, write down the problem Write below: __________ Response: Since an average of 74 reports with bird counts were delivered each day in June. For the Month of June, there are 30 x 74 x 2,220. Question 1. Then type the problem for July. Write below: __________ Response: An average of 89 reports with bird counts were delivered each day in July. For the Month of July, there are 31 days at 31 x 89 x 2,759. Question 1. Finally, find and add the two products. The ___________ reports were delivered during both months. Write below: __________ Response: Since an average of 74 reports with bird counts were delivered each day in June. For the Month of June, there are 30 days at 30 x 74 x 2,220. An average of 89 reports with bird count became every day in July. For the Month of July, there are 31 days at 31 x 89 x 2,759. Add two products to get the total number of reports that have been delivered during both months. 2,220 + 2,759 x 4,979. Question 2. What if an average of 98 reports are delivered each day for the month of June? How many reports were submitted by June? Describe how your June response would be different. ______ Reports Response: 720 reports plus Explanation: Since an average of 98 reports were delivered each day for the month of June. June has 30 days. The total number of reports was delivered for June 30 x 98 x 2, 940. From the above answer, 98 to 74 x 24. Therefore, there would be 30 × 24, or 720 more reports. Question 3. There are 48 crayons in a box. There are 12 boxes in a box. Johnson ordered six boxes of colored pencil pencils for the school. How many crayons did you get? ______ crayons Response: 3,456 crayons Explanation: There are 48 crayons in a box. There are 12 boxes in a box. Therefore, 1 box of 48 x 12 x 576 crayons. If Mr. Johnson ordered 6 boxes of colored pencil pencils for school, 6 x 576 crayons 3,456 crayons. Receive 3,456 crayons. Question 4. Make sense of the problems Each of the 5 birdwatchers reported seeing 15 buckets of rosé in one day. If each reported seeing the same number of buckets of rosé for 14 days, how many would be reported? ______ Pink buckets Response: 1,050 buckets of pink Explanation: Since, 1 day –>5 birdwatchers reported 15 teaspoons of rosés of 5 x 15 x 75 tablespoons of rosé. Therefore, in 14 days –> 5 birdwatchers reported 75 x 14 x 1,050 pink spoons. Page No. 186 Question 5. On each of Maggie's bird watching trips, she has seen at least 24 birds. If you have made 4 of these trips each year in the last 16 years, how many birds has Maggie seen? At least ______ Birds Response: Maggie saw 1,536 birds Explanation: Since, 1 trip –> Maggie saw 24 birds. For 1 year you go on 4 bird watching trips. Therefore, she has seen 4 x 24 x 96 birds for 1 year. For 16 years, 16 x 96 x 1,536 birds have seen Maggie. Question 6. Making sense of problems There are 12 on one foot. In September, Ms. Harris ordered 32 feet of tape for the Crafts Club. In January, ask for 9 feet less. How many inches of tape does Mrs. Harris order? Explain how you found your answer. ______ inches Response: 660 inches There's 12 inches on one foot. In September, Ms. Harris ordered 32 feet of tape for the Crafts Club 32 x 12 x 384. In January, she orders 9 feet minus 32 – 9 x 23. Therefore, in January, she orders 23 x 12 x 276. Mrs. Harris orders 276+ 384 x 660 inches of tape in total. (o) 9 less than 32 is 23, so I added 23 + 32 to 55. So, I multiplied 55 × 12 x 660. Question 7. Lydia's having a party on Saturday. She decides to write a riddle in her invitations to describe her home number on Cypress Street. Use the clues to find Lydia's address. ______ Cypress Street Response: 14827 Cypress Street Explanation: Since the digit of tens is 5 less than 7 x 7 – 5 x 2. 2 is the digit of tens. The digit of thousands is double the digit in place of the tens of 2 x 2 x 4. The digit of hundreds is the largest even number that is less than 10 i.e. 8. The digit is the product of 7 and 1 x 7 x 1 x 7. The digit of ten thousand is the difference between the digit of hundreds and the digit of the two. Therefore, 8 – 7 x 1. Add the products to get the final answer 14827. Lydia's address (home number) is 14827 Cypress Street. Question 8. A school is adding 4 rows of seats to the auditorium. There are 7 seats in each row. Each new seat costs $99. What is the total cost of the new seats? Show your work. $ ______ Answer: $2,772 Explanation: Since a school is adding 4 rows of seats to the auditorium. There are 7 seats in each row. Therefore, 7 x 4 x 28 seats are available in an auditorium. Each new seat costs $99. 28 x $99 to $2,772 for the total cost of the new seats. Common Core – Page No. 187 Troubleshooting Multiply 2 – Digit Numbers Solve each problem. Use a bar model to help. Question 1. Mason counted an average of 18 birds in his bird feeder each day for 20 days. Gloria counted an average of 21 birds in her bird feeder each day for 16 days. How many more birds did Mason count in his feeder than Gloria counted in his? Birds told by Mason: 18 × 20 x 360 Birds told by Gloria: 21 × 16 x 336 Draw a bar model to compare. Subtract. 360 – 336 x 24 So Mason counted 24 more birds. Answer: Birds told by Mason: 18 × 20 x 360 Birds told by Gloria: 21 × 16 x 336 Draw a bar model to compare. Subtract. 360 – 336 x 24 So Mason counted 24 more birds. Question 2. Ms. Lee's 24 class students each collect an average of 18 cans for recycling. The 21 students in Mr. Gálvez's class each collect an average of 25 cans for recycling. How many more cans were collected by Mr. Gálvez's class than Mrs. Lee's? ______ plus cans Answer: The number of cans collected by Ms. Lee's class 18 x 24 x 432. The number of picked up by Mr. Gálvez's class is 25 x 21 x 525. Use Bar Model Subtraction. 525 – 432 x 93 more cans. Mr. Gálvez's class picked up 93 more cans than Ms. Lee's Class 3. At East School, each of the 45 classrooms has an average of 22,22 At West School, each of the 42 classrooms has an average of 23 students. How many more students are there at East School than at West School? ______ more students Response: Students at East School 45 x 22 x 990. Students at West School 42 x 23 x 966. Use Bar Model Subtraction. 990 – 966 x 24. Therefore, East School has 24 more students than West School. Question 4. A zoo gift shop asks for 18 boxes of 75 keychains each and 15 boxes of 80 refrigerator magnets each. How many more keychains than refrigerator magnets do the gift shop ask for? ______ plus keychains Answer: Number of keychains 75 x 18 x 1,350. Number of Refrigerator Magnets 80 x 15 x 1,200. Use Bar Model Subtraction. 1,350 – 1,200 x 150. Therefore, the keychains are 150 more than the refrigerator magnets. Common Core – Page No. 188 Lesson Verification Question 1. Ace Manufacturing ordered 17 boxes with 85 ball bearings each. They also ordered 15 boxes with 90 springs each. How many more ball bearings did the springs order? Options: a. 5 a. 85 c. 90 d. 95 Response: d. 95 Explanation: Number of ball bearings at 85 x 17 to 1,445. Number of springs 90 x 15 x 1,350. Use Bar Model Subtraction. 1,445 – 1,350 x 95. Therefore, the ball bearings are 95 more than springs. Question 2. Elton walked 16 miles each day on a 12-day hiking trip. Lola walked 14 miles each day on her 16-day hiking trip. In total, how many more miles did Lola walk than Elton walked? Options: a. 2 miles b. 18 miles c. 32 miles d. 118 miles Response: c. 32 miles Explanation: Hiking trip through Elton at 12 x 16 x 192. Lola Hiking Tour 16 x 14 x 224. Use Bar Model Subtraction. 224 – 192 x 32. Therefore, the hiking trip through Lola is 32 times more than the hiking trip around Elton. Spiral revision question 3. An orchard has 24 rows of apple trees. There are 35 apple trees in each row. How many apple trees are in the orchard? Options: a. 59 b. 192 c. 740 d. 840 Response: d. 840 Explanation: An orchard has 24 rows of apple trees. There are 35 apple trees in each row. 24 x 35 x 840 apple trees are in the orchard. Question 4. An amusement park reported 354,605 visitors last summer. What is this number rounded to the nearest thousand? Options: a. 354,600 b. 355,000 c. 360,000 d. 400,000 Response: b. 355,000 Explanation: An amusement park reported 354,605 visitors last summer. 4,605 is close to 5,000. So, the answer is 355,000. Question 5. Attendance at the football match was 102,653. What is the value of digit 6? Options: a. 6 b. 60 c. 600 d. 6,000 Response: c. 600 Explanation: Digit 6 is in hundreds of positions. Therefore, the answer is 6 x 100 x 600. Question 6. Fish from weighs 8 times more than your parakeet. Together, pets weigh 63 ounces. How much does the fish weigh? Options: a. 7 ounces b. 49 ounces c. 55 ounces d. 56 ounces Response: d. 56 ounces Explanation: Jill's parakeet - X. Jill's fish weighs 8 times more than her 8X parakeet. Together, pets weigh 63 ounces. X + 8X ? 9X to 63. X to 63/9 to 7. So, Jill's parakeet No. 7. 7 x 8 x 56 ounce Jill fish. Review/Test – Page No. 189 Question 1. Explain how to find 40 × 50 using the type of mental math below: _________ Answer: 200 Explanation: 40 x 50 By using mental math 4 x 5 x 20 40 x 50 x 200 Mrs. Traynor's class is taking an excursion to the zoo. The trip will cost $26 for each student. There are 22 students in your class. Part To Round each factor to estimate the total cost of the students' excursion. $ ______ Answer: $600 Explanation: Total cost of student field trip 22 × $26. 22 x $26 20 x $30 to $600 The total cost would be approximately $600. Question 2. Part B Use compatible numbers to estimate the total cost of the tour. $ ______ Response: $500 Explanation: If we use compatible numbers to estimate the total cost of the tour. 22 x $26 20 × 25 x 500 The total cost would be about $500. Question 2. Part C What do you think is the best estimate? Explain. Best Estimate: __________ Response: The use of rounded numbers is a better estimate. When using rounded numbers, an estimated factor was $4 more than the actual factor and the other estimated factor was $2 which is less than the actual factor. Therefore, the estimate must be close to the current one. When using compatible numbers, both estimated factors were less than the actual factors. Therefore, the product will be an understatement. Review/Test – Page No. 190 For numbers 3a–3e, select Yes or No to show if the answer is correct. Question 3. 3a. 35 × 10 x 350 i. yes ii. No Answer: i. Yes Explanation: 35 x 10 x 350 30 x 10 x 300. 5 x 10 x 50. 300 + 50 x 350. Question 3. 3b. 19 × 20 x 380 i. yes ii. No Answer: i. Yes Explanation: 19 × 20 x 380 19 x 20 x 19 x 2 tens. 19 x 20 x 38 tens to 380. Question 3. 3c. 12 × 100 x 120 i. yes ii. unanswered: ii. no explanation: 12 x 100 x 120. 10 x 100 x 1000 2 x 100 x 200. 1000 + 200 x 1200. Question 3. 3d. 70 × 100 x 7,000 i. yes ii. No Answer: i. Yes Explanation: 70 x 100 x 7,000 100 x 7 tens to 700 tens to 7,000 questions 3. 3e. 28 × 30 x 2,100 i. yes ii. unanswered: ii. No explanation: 28 × 30 20 x 30 x 600 8 x 30 x 240 600 + 240 to 840 question 4. There are 23 boxes of pencils in Mr. Shaw's supply closet. Each box contains 100 pencils. How many pencils are in the supply closet? _____ Pencils Answer: 2,300 pencils Explanation: 23 x 100 x 2,300 pencils are in the supply closet. Question 5. What would provide a reasonable estimate for each product? Enter the estimate next to the product. An estimate can be used more than once 23 × 38 __________ 31 × 32 __________ 46 × 18 __________ 39 × 21 __________ Response: 23 × 38 –> 25 x 40 33 1 x –> 30 × 30 46 × 18 –> 50 × 20 39 × 21 –> 25 × 40 Explanation: 23 × 38; 23 is about 25; 38 is about 40. Therefore, the estimated product is 25 x 40 31 x 32; 31 is about 30; 32 is about 30. Therefore, the product is 30 × 30 46 × 18; 46 is about 50; 18 is about 20. Therefore, the estimated product is 50 × 20 39 × 21; 39 is about 40; 21 is about 25. Therefore, the estimated product is 25 × 40 question 6. There are 26 baseball teams in the league. Each team has 18 players. Write a numeric phrase that provides a reasonable estimate for the number of players in the league. Explain how you found your estimate. Write below: __________ Answer: There are 26 baseball teams in the league. Each team has 18 players. 26 x 18 25 x 20 Round each factor to its closing factor, then simplify multiplication. Question 7. The model shows 48 × 37. Enter partial products. Write below: __________ Answer: Partial products are 1200, 240, 280, 56 Review/Test – Page No. 191 Question 8. Jess made this model to find product 32 × 17. Your model is incorrect. Part A What did Jess do wrong? Write below: __________ Answer: Jess added the numbers in the model instead of multiplying. Question 8. Part B Redraw the model to make it correct. Write below: __________ Answer: Question 8. Part C What is the actual product 32 × 17? ______ Response: 544 Explanation: 32 × 17 10 x 32 to 320 7 x 32 to 224 320 + 224 to 544. Question 9. Tatum wants to use partial products to find 15 × 32. Type the numbers in the boxes to display 15 × 32. Write below: __________ Answer: Review/Test – Page No. 192 Question 10. What product does the model show? Type the product letter on the line below the model. Write below: __________ Answer: C A B 10 + 3 to 13 10 + 3 to 13 13 x 13 2. 10 + 7 x 17 30 + 6 x 36 17 x 36 3. 20 + 4 x 24 10 + 4 x 14 24 x 14 Question 11. Jones places 3 orders for school T-shirts. Each order has 16 boxes of shirts and each box has 17 shirts. How many T-shirts does Mrs. Jones order? Use partial products to help you. Write below: __________ Answer: 816 T-Shirts Explanation: Ms. Jones places 3 orders for school T-shirts. Each order has 16 boxes of shirts and each box has 17 shirts. Each box has 17 shirts. 16 boxes at 16 x 17 x 272. Each order is 16 boxes of 272 shirts. 3 orders of shirts of 3 x 272 x 816. Jones asks for 816 T-shirts. Question 12. Enter the unknown digits. Use each digit exactly once. Write below: __________ Response: 90 x 40 x 3,600 90 x 6 x 540 3 x 40 to 120 3 x 6 x 18. 3,600 + 540 + 120 + 8 x 4,278. Question 13. Mike's got 16 baseball cards. Niko has 17 times as many baseball cards as Mike. How many baseball cards does Niko have? ________ Baseball Cards Answer: 272 Baseball Cards Explanation: Mike has 16 baseball cards. Niko has 17 times as many baseball cards as Mike. Niko has 16 x 17 x 272 baseball cards. Question 20 x 6 x 120 8 x 30 to 240 8 x 6 to 48 600 + 120 + 240 + 48 to 1,008 Review/Test – Page No. 193 Question 15. One farmer planted 42 rows of tomatoes with 13 plants in each row. How many tomato plants did the farmer grow? 42 × 13 - ______ Tomato plants Answer: 420 + 126 to 546 tomato plants Explanation: 42 × 13 10 x 42 x 420 3 x 42 to 126 420 + 126 x 546 tomato plants Question 16. Select another way to display 25 × 18. Check all that apply. Options: a. (20 × 10) + (20 × 8) + (5 × 10) + (5 × 8) b. (25 × 20) + (25 × 5) + (25 × 10) + (25 × 8) c. (20 × 18) + (5 × 10) + (5 × 8) d. (25 × 10) + (25 × 8) e. (25 × 20) + (25 × 5) Response: a. (20 × 10) + (20 × 8) + (5 × 10) + (5 × 8) c. (20 × 18) + (5 × × 10) + (5 × 8) c. (20 × 18) + (5 ×) + (5 × 8) c. (20 × 18) + (5 × <6> 10) + (5 × 8) d. (25 × 10) + (25 × 8) Explanation: 25 × 18 10 x 25 x 250 8 x 25 x 200 250 + 200 to 450. a. (20 × 10) + (20 × 8) + (5 × 10) + (5 × 8) to 200 + 160 + 50 + 40 to 450 b. (25 × 20) + (25 × 5) + (25 × 10) + (25 × 8) at 500 + 125 + 250 + 200 to 1,075 c. (20 × 18) + (5 × 10) + (5 × 8) to 360 + 50 + 40 to 450 d. (25 × 10) + (25 × 8) to 250 + 200 to 450 e. (25 × 20) + (25 × 5) to 500 + 125 to 625 of question 17. Terrell runs 15 sprints. Each sprint is 65 meters. How many meters does Terrell run? Show your work. ______ Meters Response: 975 meters Explanation: Terrell run 15 x 65 x 975 meters. Question 18. There are 3 new seats in each row in a school auditorium. There are 15 rows in the auditorium. Each new seat costs $74. What is the cost of new seats? Explain how you found your answer. $ ______ Answer: $3,330 Explanation: Since there are 3 new seats in each row in a school auditorium. There are 15 rows in the auditorium. Each new seat costs $74. Therefore, 3 x 15 x 45 seats are available in an auditorium. Each new seat costs $74. 45 x $74 to $3,330 for the total cost of the new seats. Question 19. She and Ray helped move their school library to a new building. Ray packed 27 boxes with 25 books in each box. She packed 23 boxes with 30 books in each box. How many more books did Ella pack? Show your work. ______ Books Answer: 15 books Explanation: Ray packed 27 x 25 x 675 books. She packed 23 x 30 x 690 books She packed 690 – 675 x 15 more books than Ray. Review/Test – Page No. 194 Question 20. Julius and Walt are finding the product of 25 and 16. Julius' answer in Part A is incorrect. What did Julius do wrong? Write below: __________ Answer: Julius multiplied 25 times 10 and then multiplied 25 by 6 correctly. He added the two partial products incorrectly. Question 20. Part B What did Walt do wrong? Write below: __________ Answer: Walt multiplied 6 by 5 and got 300 instead of 30 questions 20. Part C What is the right product? Write below: __________ Answer: 25 x 16 x 400 Question 21. A clothes sells 26 shirts and 22 pairs of jeans. Each piece of clothing costs $32. Part A What is a reasonable estimate for the total cost of clothing? Clothes? or explain how he found his answer. $ ______ Answer: $1500 Explanation: A clothing store sells 26 shirts and 22 pairs of jeans. Clothing of 26 + 22 x 48. Each piece of clothing costs $32. 48 x $32 50 x $30 to $1500 Question 21. Part B What is the exact answer for the total cost of clothing? Show or explain how you found your answer. $ ______ Answer: $1,536 Explanation: 48 x $32 40 x $32 to $1,280 8 x $32 to $256 $1,280 + $256 to $1,536 Page No. 199 Question 1. The restaurant has 68 chairs. There are six chairs on each table. How many tables are in the restaurant? Estimate. 68 ÷ 6 Think: What number for 6 is 68? 10 × 6 to ___ 11 × 6 to ___ 12 × 6 to ___ 68 is closer to ______, so the best estimate is about _______ the tables are in the restaurant. Write below: __________ Answer: 68 is about 70 and 6 is about 5. Therefore, 70/5 x 12. 10 × 6 to __60_ 11 × 6 to _66__ 12 × 6 to _72__ 68 is closer to ___66___, so the best estimate is approximately 11 x 6 x 66 tables in the restaurant. Find two numbers among which is the quotient. Then estimate the quotient. Question 2. 41 ÷ 3 between _______ and _______ Response: between 13 and 14 out of 14 Explanation: 13 x 3 x 39; 14 x 3 x 42. The ratio of 41 ÷ 3 is between 13 and 14. Question 3. 192 ÷ 5 between _______ and _______ Response: between 30 and 40 over 40 Explanation: 30 x 5 x 150; 40 x 5 x 200. The ratio of 192 ÷ 5 is between 30 and 40. Find two numbers among which is the quotient. Then estimate the quotient. Question 4. 90 ÷ 7 between _______ and _______ Response: between 12 and 13 out of 13 Explanation: 12 x 7 x 84; 13 x 7 x 91. The ratio of 90 ÷ 7 is between 12 and 13. Question 5. 67 ÷ 4 between _______ and _______ Response: between 16 and 17 out of 17 Explanation: 16 x 4 x 64; 17 x 4 x 68. The ratio of 67 ÷ 4 is between 16 and 17. Question 6. 281 ÷ 9 between _______ and _______ Response: between 30 and 40 out of 30 Explanation: 30 x 9 x 270; 40 x 9 x 360. The ratio of 281 ÷ 9 is between 30 and 40. Question 7. 102 ÷ 7 between _______ and _______ Response: between 14 and 15 out of 15 Explanation: 14 x 7 x 98; 15 x 7 x 105. The ratio of 102 ÷ 7 is between 14 and 15. Question 8. 85 ÷ 6 between _______ and _______ Response: between 14 and 15 out of 14 Explanation: 14 x 6 x 84; 15 x 6 x 90. The ratio of 85 ÷ 6 is between 14 and 15. Question 9. 220 ÷ 8 between _______ and _______ Response: between 20 and 30 over 30 Explanation: 20 x 8 x 160; 30 x 8 x 240. The ratio of 220 ÷ 8 is between 20 and 30. Decide whether the actual quotient is greater than or less than the given estimate. Type < or >. Question 10. 83 ÷ 8 _______ 10 Answer: > Explanation: 83 ÷ 8 to 10,375 > 10 Question 11. 155 ÷ 4 _______ 40 Answer: < Explanation: 155 ÷ 4 to 38.75 < 40 Question 12. 70 ÷ 6 _______ 11 Answer: > Explanation: 70 ÷ 6 x 11.666 > 11 Question 13. What is the The heart of a dolphin beats 688 times in Minutes. Answer: about 100 times. Write below: __________ Answer: How many times does a dolphin's heart beat in 1 minute? Question 14. Analyzing a bottlenose mother ate about 278 pounds of food in a week. How much food did you eat in a day? About _____ Pounds Response: About 40 pounds Explanation: 278 ÷ 7 The 278÷ 7 ratio is between 39 and 40. Question 15. Tanya has $42 to spend at the Dolphin Island store. T-shirts sell for $7 each and a pair of sunglasses sells for $6. Tanya buys 3 T-shirts. How many pairs of sunglasses can you buy with the amount of money you have left? _____ Pairs of sunglasses Answer: 3 pairs of sunglasses Explanation: Since Tanya has $42 to spend in the Dolphin Island store. T-shirts sell for $7 each and a pair of sunglasses sell for $6. Tanya buys 3 T-shirts from 3 x $7 to $21. pair of sunglasses: $42 – $21 to $21. 1 pair of sunglasses sold for $6. Therefore, $21 ÷ $7 x 3. 3 pairs of tanya sunglasses can buy with the amount of money you have left. Page No. 200 Question 16. If a bottle nose dolphin can eat 175 pounds of fish, squid and shrimp in a week, how many pounds of food does it eat in a day? Milo says the answer is 20 pounds. Leah says the answer is 30 pounds. Who's right? Explain. ________ Answer: The bottle nose dolphin can eat 25 pounds for 1 day. Both answers are correct. Because the 25 pounds are between 20 and 30 pounds. Explanation: 1 week 7 days. The bottle nose dolphin can eat 175 pounds for 7 days. For 1 day 175 ÷ 7 x 25 pounds. The bottle nose dolphin can eat 25 pounds for 1 day. Both answers are correct. Because the 25 pounds are between 20 and 30 pounds. Question 17. Four families went out for lunch. The total food bill reached $167. Families also left a $30 tip for the waitress. If each family spent the same amount, how much did each family spend at dinner? Explain how you found your answer. $ ______ Response: $98.5 Explanation: Four families went out for lunch. The total food bill reached $167. Families also left a $30 tip for the waitress. Therefore, the total amount is $167 + $30 to $197. If each family spent the same amount of $197 ÷ $2,98.5 Each family spent $98.5. Question 18. There are 6 samples of a film about Van Gogh at the Museum of Art. A total of 459 people watched the film. The same number of people were in each of those who showed up. How many people were in each presentation? Circle the numbers between which the quotient is located. Then explain how you found your answer. 40 50 60 70 80 Type below: _________ Response: 40 50 60 70 80 I found multiples of 6 that 459 is between. 70 6 x 420 and 80 × 6 to 480. Since 459 is closer to 480, 459 ÷ 6 is approximately 80. Conclusion Check the links and solved the problems for better mathematical practice. Use Go Math Grade 4 Answer Chapter 3 Multiply 2-digit numbers for more knowledge. Improving practical knowledge and skill resolution with help Response key HMH Go Math Grade 4. Be the first to take the best approach by downloading Go Math HMH Answer Key. Key.

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