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January 2017 algebra 1 regents answers

Past NY Regents tests CCSS Algebra 1 level related topics: More lessons for regents high school exam more lessons for Algebra high school math based on topics needed for regents exam conducted by NYSED. The following are working solutions for the Algebra 1 (Common Core) Regents high school exam in January 2017. The following are questions from past Regents High School Algebra I January 2017 Exam (pdf). Scroll down the page for step-by-step solutions. Algebra 1 - January 2017 Regents - Questions and Solutions 1 - 12 1.What expression is equivalent to 16x2 - 36? 2. What is the set of equation solutions (x - 2)(x - a) = 0? 3. Analysis of data from the statistical study shows a linear relationship in the data with a correlation coefficient of 0.524. Which statement best compresses this result? 4. Boyle's law includes pressure and the amount of gas in the tank. It may be represented by the formula P1V1 P2V2. When is the formula solved for P2, the result is? 5. The radio station did a survey to determine what kind of music it plays by taking a sample of high school students, high schools and students. They were asked which of the three different types of music they preferred on the radio: hip-hop, alternative or classical rock. The results are summarized in the table below. What percentage of students prefer classical rock? 6. What function has zeros of 4 and 2? 7. Which expression is equal to 2(3g - 4) - (8g + 3)? 8. In 2014, the cost of sending a letter was 49 cents for up to one ounce. Each additional ounce costs 21 cents. What recursive function could be used to price a 3-ounce letter, in cents? 9. The car leaves Albany, NY, and travels west toward Buffalo, NY. Equation D 280 59t can be used to represent distance, D, from Buffalo after t hours. In this equation, 59 represents 10. Faith

wants to use formula C(f) = 5/9(f - 32) to convert degrees Fahrenheit, f, to degrees Celsius, C(f). If Faith were to calculate C.68, what would her score be? 11. What scenario represents exponential growth? Computing. (1) The water tank is filled at a speed of 2 gallons/minute. (2) Vines grow 6 inches each week. (3) The fl y species doubles its population every month during the summer. (4) The car increases its distance from the garage as it travels at a constant speed of 25 miles per hour. 12. What is the minimum value of y = |x + 3| - 2? Show step-by-step solutions algebra 1 - January 2017 Regents - Questions and Solutions 13 - 24 13. What type of relationship exists between the number of pages printed on the printer and the amount of ink used by that printer? 14. The computer application generates a sequence of musical notes using the function f(n) = 6(16)n, where n the number of notes in sequence and f(n) is the frequency of the note in the hertz. What function will generate the same note as f(n)? 15. What is the value x solution of equation 13 - 36x2 = -12? 16. What is the solution to the system below? 2y < -12x + 4 y < -6x + 4 17. When f(x) = x2 multiplies by a, where > 1, the new function chart, g(x) = ax2 18. Andy has $310 in his account. Every week, w, he withdraws $30 for his expenses. What look on his face could be used if he wanted to find out how much money he had left after eight weeks? 19. The daily cost of production at the factory shall be calculated using calculation. c(x) = 200 + 16x, where x is the number of complete products produced. Which set of numbers best defines domain c(x)? 20. Noah conducted a survey on participation in sport. He created the following two plot points representing the number of students participating, by age, in football and basketball. Which statement on the datasets made is correct? 21. The graph of average resting heart rate is shown below. The average resting heart rate for adults is 72 beats per minute, but doctors are considering a rest rate of 60-100 beats per minute within the normal range. Which average resting heart rate statement isn't supported by the chart? 22. The method of completing the square was used to solve the equation 2x2 - 12x + 6 = 0. Which equation is the correct step when using this method? 23. Nancy works for a company that offers two types of savings plans. Plan A is presented in the chart below. Plan B is a function f(x) = 0.01 + 0.05x2, where x is the number of weeks. Nancy wants to have the highest savings possible after a year. Nancy chooses Plan B. 24. The winner of the 2014 Boston Marathon runs as many as 120 miles a week. During the last few weeks of training for the event, its mileage can be model by M(w) = 120(.90)w - 1, where w represents the number of weeks since the start of training. What is the statement true about model M(w)?? Show step-by-step solutions Algebra 1 - January 2017 Regents - Questions and Solutions 25 - 37 25. Trying to solve the system of equations y = 3x - 2 and 6x - 2y = 4, John charted two equations on his graphing calculator. Since he saw only one sentence, John wrote that the answer to the system was an empty set. Is he right? Explain your answer. 26. A typical marathon is 25 miles. Allan averages 12 kilometres per hour when running in marathons. Determine how long it will take Allan to complete the marathon, until the nearest tenth of an hour. Justify your answer. 27. Address inequality below: 1.8 - 0.4y ≥ 2.2 - 2y 28. Jakob's doing his math homework. He decides that the sum of expressions 1/3 + 6√5/7 must be rational because it is a fraction. Is Jakob right? Explain your thinking. 29. Chart inequality y > 2x - 5 on set axis below. In its solution, it lowers the coordinates of the point. 30. Sandy is to program the process of billing websites with equation for calculating the amount that users will be charged when downloading songs. The website offers a discount. If one song is purchased at the full price of $1.29, then each additional song is $99. Write an equation that represents cost, C, when songs are downloaded. Sandy thought he was going to charge her $52.77 for 52 songs. Is that the exact amount? Justify your answer. 31. The family travels from their home to a holiday hotel. The table below shows their distance from home as a function of time. Specify the average change rate between 2 hours and 7 hours, including units. 32. Nora says that the circular graph is not a function because multiple x map values are at the same y-value. Determine whether any of them are correct and fully justify your answer. 33rd graph f(x) = |x| and g(x) = -x2 + 6 on the grid below. Does f(-2) = g(-2)? Use the chart to explain why or why not. Two friends went to a restaurant and ordered one plain pizza and two sodas. Their ordered three regular pizzas and each person had one soda. Their bill was $45.90. Write and solve the system of equations to determine the price of one ordinary pizza. [Only an algebraic solution can get a full loan.] 35. Tanya makes homemade congratulations. The data table below represents the amount it spends in dollars, f(x), in terms of the number of cards it makes, x. Write a linear function, f(x), representing the data. Explain what inclination and y-intercept f(x) mean in the default context. Alex launched the ball into the air. The height of the ball can be represented by the equation h = -8t2 + 40t + 5, where h is the height, in the units, and t is the time, per second, after the launch of the ball. 37. Ian borrows $1,000 from his parents to buy a laptop. He plans to pay them back at the rate of $60 a month. Ken borrows $600 from his parents to buy a snowboard. He plans to pay his parents back at a rate of $20 a month. Write an equation that can be used to determine after how many months boys will owe the same amount. Determine and find out if Ian is right. Explain your thinking. Show step-by-step solutions Try the free Mathway calculator and problem solver below to practice a variety of math topics. Try default examples or type your own problem and check your answer explanations step by step. We welcome your feedback, comments and questions about this site or page. Send your feedback or inquiries via our Feedback page. Past NY Regents tests CCSS Algebra 1 level related topics: More lessons for regents high school exam more lessons for Algebra high school math based on topics needed for regents exam conducted by NYSED. The following are working solutions for the Algebra 1 (Common Core) Regents high school exam in January 2017. The following are questions from past Regents High School Algebra I January 2017 Exam (pdf). 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Determine and find out if Ian is right. Explain your thinking. Show Step by Step Try the free Mathway calculator and problem solver below to practice a variety of math topics. Try the default examples or type your own problem and check your answer with step-by-step explanations. We welcome your feedback, comments and questions about this site or page. Send your feedback or inquiries via our Feedback page. It's a page.