

Section 1: Whole Numbers

TERM 1

Question 1 | Value and Place Value: 4-digit Numbers [Revision]

1. Write down the value of each underlined digit.

Value is how much a digit in a number is worth.

- a) 6 259 200 b) 7 382 c) 8 137 d) 4 953
- e) 2 936 f) 4 289 g) 3 545 h) 7 221

2. Write down the place value of each underlined digit.

Place value is what column (Th, H, T or U) the digit is in.

Think: "Position"

- a) 6 158 U b) 4 709 c) 5 728 d) 9 845
- e) 2 342 f) 3 928 g) 8 912 h) 6 344

Question 2 | Expanded Form and Short Form

1. Write the following numbers in expanded form.

- a) $4\ 837 = 4000 + 800 + 30 + 7$ d) $2\ 355 = (2 \times 1000) + (3 \times 100) + (5 \times 10) + 5$
- b) $6\ 535 = \dots\dots\dots$ e) $3\ 237 = (\dots \times 1000) + (\dots \times 100) + (\dots \times 10) + \dots$
- c) $2\ 950 = \dots\dots\dots$ f) $6\ 615 = (\dots \times 1000) + (\dots \times 100) + (\dots \times 10) + \dots$

2. Write in short form.

- a) $2000 + \underset{\uparrow}{90} + 5 + \underset{\uparrow}{40} = 2\ 135$ b) $6 + 5000 + 4 + 700 = \dots\dots\dots$
- c) $9000 + 40 + 500 + 3 + 300 = \dots\dots\dots$ d) $4000 + 50 + 500 + 70 = \dots\dots\dots$

3. Write in short form.

- a) $(4 \times 1000) + (5 \times 10) + (3 \times 1) + (7 \times 100) = \dots\dots\dots$
- b)* $(2 \times 1000) + (3 \times 10) + (5 \times 100) + (6 \times 10) = \dots\dots\dots$
- c)** $(7 \times 1) + (8 \times 100) + (4 \times 1000) + (2 \times 100) = \dots\dots\dots$



Question 3 | Numbers Facts

1. Complete:
- | | | |
|---------------------|-----------------------|---------------------|
| a) 17 units = 17 | b) 3 tens = 30 | c) 15 tens = 150 |
| 37 units = | 5 tens = | 25 tens = |
| 87 units = | 8 tens = | 75 tens = |
| d) 3 hundreds = 300 | e) 14 hundreds = 1400 | f) 56 units = |
| 4 hundreds = | 64 hundreds = | 56 tens = |
| 9 hundreds = | 94 hundreds = | 56 hundreds = |

2. Study: In the number 6375 there are 6 thousands.
 In the number 6375 there are 63 hundreds.
 In the number 6375 there are 637 tens.
 In the number 6375 there are 6375 units.

See pp. 227 - 228
 Concepts 1 - 4

3. Complete: a) In 3825 there are 3 thousands, 38 hundreds, 382 tens or 3825 units.
 b) In 4563 there are thousands, hundreds, tens or units.
 c) In 7128 there are thousands, hundreds, tens or units.
 d) In 8693 there are thousands, hundreds, tens or units.

4. Add 3 tens to each of the following numbers:

Example: 7695: "say 769 tens + 3 tens = 772 tens." Answer: 7725

- a) 1127: b) 3473: c) 5584: d) 8792:

5. Subtract 400 from each of the following numbers:

Example: 5321: "say 53 hundreds - 4 hundreds = 49 hundreds." Answer: 4921

- a) 3625: b) 5473: c) 6284: d) 8192:

Question 4 | Number Sequences (Counting in 10s and 100s)

1. Fill in the missing numbers in each:

- a) 561 ; 551 ; 541 ; ; 521 ; ; ; ; 481 ; Rule:
- b) 3764 ; 3774 ; 3784 ; ; ; ; 3824 ; Rule:
- c) 4541 ; 4531 ; ; 4511 ; ; ; 4481 ; ; 4461. Rule:
- d) 6644 ; 6744 ; ; 6944 ; ; 7144 ; ; Rule:
- e) 9358 ; 9258 ; ; 9058 ; ; ; 8758 ; 8658 ; Rule:

Question 5 | Rounding off to the nearest 10

See pg 229
 Rounding Off

1. Round the following numbers off to the nearest 10.

Example: In $\overset{\text{Th}}{4} \overset{\text{H}}{9} \overset{\text{T}}{2} \overset{\text{U}}{7}$ there are 492 tens.

To round it off to the nearest ten you must ask:
 Is 4 927 closer to 492 tens or is it closer to 493 tens?

Answer: $4\ 927 \approx 4\ 930$ (493 tens)

Think: $\begin{matrix} \nearrow 4920? \\ 4\ 927 \\ \searrow 4930? \checkmark \end{matrix}$

Use the 7 (the **units** digit) to decide.

- a) 1512 \approx b) 2839 \approx c) 2875 \approx d) 4582 \approx
 e) 2763 \approx f) 1945 \approx g) 2387 \approx h) 6027 \approx
 i)* 8907 \approx j)* 5902 \approx k)* 2197 \approx l)* 6395 \approx

Question 6 | Rounding off to the nearest 100 and 1000See pg 229
Rounding Off

1. Round each number off to the nearest 100.

Example: In 4825 there are 48 hundreds.OPTION 1: To round it off to the nearest hundred you must ask:
Is 4 825 closer to 48 hundreds or is it closer to 49 hundreds?Answer: **4 825 \approx 4 800** (48 hundreds)Use the 2 (the **tens** digit) to decide.

Think: $\begin{matrix} \nearrow & 4\ 800? \checkmark \\ & \text{or} \\ \searrow & 4\ 900? \end{matrix}$

- a) 3183 \approx b) 4567 \approx c) 6732 \approx d)* 1971 \approx
 e) 1265 \approx f) 3507 \approx g) 7492 \approx h)* 3987 \approx

2. Round each number off to the nearest 1000.

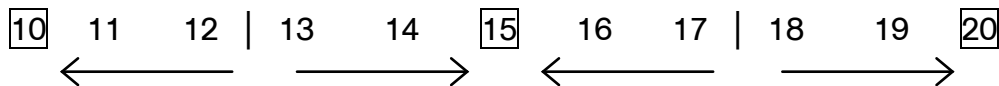
Example: **2 576 \approx 3 000**Use the 5 (the **hundreds** digit) to decide.

2 576 is closer to 3 thousand than it is to 2 thousand.

- a) 1 183 \approx b) 3 567 \approx c) 7 802 \approx d) 3 109 \approx
 e) 9 083 \approx f) 6 299 \approx g) 6 632 \approx h) 5 983 \approx

Question 7 | Rounding off to the nearest 5

1. Use the number line below to help you when rounding off to the nearest 5.

Examples: 23 is closer to 25 than it is to 20.
Therefore **23 \approx 25** when rounded off to the nearest 5.138 is closer to 140 than it is to 135.
Therefore **138 \approx 140** when rounded off to the nearest 5.

2. Round each number off to the nearest 5.

- a) 12 \approx b) 136 \approx c) 2174 \approx d) 6428 \approx
 83 \approx 459 \approx 5492 \approx 8637 \approx

Question 8 | Place Value and Value: 5-digit Numbers

1. Study: The number below is said, "fifteen thousand, six hundred and forty two".



TTh	Th	H	T	U
<u>1</u>	<u>5</u>	<u>6</u>	<u>4</u>	<u>2</u>

2. Write down the value of each underlined digit.

Value is how much a digit in a number is worth.

- a) 12 790 2 000 b) 37 182 30 000 c) 28 497
 d) 53 937 e) 78 937 f) 41 539
 g) 23 197 h) 90 742 i) 56 917

3. Write down the place value of each underlined digit.

Place value is what column the digit is in. *Think: "Position"*

- | | | |
|-------------------------------|-------------------------------|------------------------------|
| a) <u>8</u> 2 751 TTh | b) 12 <u>9</u> 27 | c) 9 <u>6</u> 128 |
| d) 53 <u>7</u> 62 | e) 40 8 <u>5</u> 3 | f) <u>5</u> 1 057 |
| g) 36 9 <u>8</u> 5 | h) <u>2</u> 4 689 | i) 25 <u>8</u> 03 |

Question 9 | 5-digit numbers in words

1. Complete:

Thousands "space"

- a) Twelve **thousand**, two hundred and seventy three is written **12 273**.
- b) Seventeen **thousand**, five hundred and forty-two is written
- c) Fifty two **thousand** and sixty-five is written
- d) Twenty three **thousand** four hundred and eight is written
- e) Nineteen **thousand**, six hundred and nineteen is written
- f) Forty five **thousand** and eighty seven is written
- g) Eighty seven **thousand**, five hundred and twenty three is written

2. Write each of the numbers in words.

- a) 13 564:
- b) 25 817:
- c) 47 062:
- d) 99 009:



Question 10 | Expanded Form

1. Write the following numbers in expanded form.

- | | |
|-------------------------------------|---|
| a) 13 807 = 10 000 + 3000 + 800 + 7 | e) 21 738 = 2TTh + 1Th + 7H + 3T + 8U |
| b) 29 035 = | f) 43 459 = TTh + Th + H + T + U |
| c) 40 948 = | g) 18 907 = TTh + Th + H + T + U |
| d) 51 009 = | h) 84 182 = TTh + Th + H + T + U |

Question 11 | Short Form

1. Write in short form.

- | | |
|---|--|
| a) 10 000 + 2 000 + 900 + 50 + 4 = 12 954 | b) 10 000 + 7 000 + 400 + 20 + 8 = |
| c) 700 + 8 000 + 50 + 30 000 = | d) 1 000 + 9 + 50 000 + 20 = |
| e) 3000 + 80 000 + 500 + 7 + 200 = | f) 10 000 + 7 000 + 400 + 20 + 8 = |
| g) *50 + 3 + 50 000 + 7 + 6000 = | h) * 5 + 600 + 90 000 + 500 = |

2. Write in short form.

- a) $8TTh + 4Th + 2H + 7T + 5U = \dots\dots\dots$ b) $3H + 7Th + 2TTh + 8T = \dots\dots\dots$
 c) $2T + 8TTH + 4H + 3U = \dots\dots\dots$ d) $*7TTH + 3U + 8U + 2T = \dots\dots\dots$

3. Write in short form.

- a) $(8 \times 10\,000) + (3 \times 1000) + (5 \times 100) + (4 \times 10) + 6 = \dots\dots\dots$
 b) $(3 \times 10) + (6 \times 1000) + (9 \times 1) + (2 \times 10\,000) = \dots\dots\dots$
 c) $(4 \times 10) + (8 \times 1) + (7 \times 10\,000) + (3 \times 100) = \dots\dots\dots$
 d)* $(5 \times 10) + (4 \times 10\,000) + (8 \times 10) + (7 \times 1) + (6 \times 1000) = \dots\dots\dots$



Question 12 | Ascending and Descending Order

1. Write the numbers in ascending order of size and then circle the even number.

11 967 , 11 697 , 11 976 , 11 769

.....

Ascending means “going up”:
smallest to biggest.

2. Write the numbers in descending order of size and then circle the odd number.

29 766 , 28 766 , 29 667 , 28 996

.....

Descending means “going down”:
biggest to smallest.

Question 13 | Comparing Numbers

1. Insert the symbol $>$ or $<$ between each pair of numbers.

- a) $19\,125$ $19\,215$ b) $11\,420$ $11\,402$ c) $33\,758$ $33\,785$
 d) $99\,989$ $99\,998$ e) $10\,404$ $10\,040$ f) $86\,868$ $88\,686$

2. Insert the symbol $>$, $<$ or $=$ between each pair of numbers.

- a) $400 + 30$ $40\,000 + 3$ b) $7\,859 + 10$ $78\,590$
 c) $19\,667 + 1$ $19\,669 - 1$ d) $13\,346 + 1$ $13\,346 \times 1$

3. Which is bigger?

- a) $3TTh + 80 + 5000 + 7$ or b) $(3 \times 10\,000) + (8 \times 100) + (5 \times 1000) + 7$

Question 14 | Building Numbers

1. Use the following digits to make the biggest number and the smallest number possible.

1	4	0	2	8
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a) Biggest number:

b) Smallest number:

2. True or False?

The smallest number that can be written with five different digits is 12 340.

Question 15 | Numbers Facts

1. Complete:

- | | | |
|---------------------|-----------------------|--------------------------|
| a) 14 units = 14 | b) 2 tens = 20 | c) 15 tens = 150 |
| 24 units = | 3 tens = | 34 tens = |
| 54 units = | 7 tens = | 83 tens = |
| d) 2 hundreds = 200 | e) 12 hundreds = 1200 | f) 18 thousands = 18 000 |
| 5 hundreds = | 35 hundreds = | 23 thousands = |
| 7 hundreds = | 92 hundreds = | 87 thousands = |

2. Write in short form.

- | | |
|-----------------------------------|--------------------------------------|
| a) 50 thousands + 8 units = | b) 30 thousands + 2 tens = |
| c) 25 thousands + 6 tens = | d) 47 thousands + 5 hundreds = |
| e) 53 thousands + 7 units = | f) 84 thousands + 6 tens = |

3. Study: In the number 26 375 there are 2 ten thousands.
 In the number 26 375 there are 26 thousands.
 In the number 263 75 there are 263 hundreds.
 In the number 2637 5 there are 2637 tens.
 In the number 26375 there are 26375 units.

See pg 229
Concept 5

4. Complete:
- | | |
|---|--|
| a) In 13 825 there are 13 thousands, 138 hundreds or 1382 tens. | |
| b) In 24 563 there are thousands, hundreds or tens. | |
| c) In 37 128 there are thousands, hundreds or tens. | |
| d) In 68 693 there are thousands, hundreds or tens. | |

5. Add 3 thousands to each of the following numbers:

Examples: 15 723: "say 15 thousands + 3 thousands = 18 thousands." Answer: 18 723
29 695: "say 29 thousands + 3 thousands = 32 thousands." Answer: 32 695

- | | | | |
|------------------|------------------|------------------|------------------|
| a) 11 127: | b) 17 473: | c) 28 584: | d) 39 792: |
|------------------|------------------|------------------|------------------|

6. Subtract 7000 from each of the following numbers:

Examples: 68 283: "say 68 thousands - 7 thousands = 61 thousands ." Answer: 61 283
26 154: "say 26 thousands - 7 thousands = 19 thousands ." Answer: 19 154

- | | | | |
|------------------|------------------|------------------|------------------|
| a) 18 218: | b) 27 825: | c) 35 804: | d) 42 762: |
|------------------|------------------|------------------|------------------|

Question 16 | Number Sequences (Counting in 100s and 1000s)

1. Fill in the missing numbers in each.

a) 15 403 ; 15 503 ; 15 603 ; ; 15 803 ; ; ; Rule:

b) 23 541 ; 23 441 ; 23 341 ; ; 23 141 ; ; ; 22 841. Rule:

c) 16 215 ; 17 215 ; 18 215 ; ; ; ; 22 215. Rule:

d) 44 827 ; 43 827 ; ; 41 827 ; ; ; 38 827 ; Rule:

e) 42 525 ; 44 525 ; 46 525 ; ; ; 52 525 ; Rule:

f)* 51 740 ; 48 740 ; 45 740 ; ; ; 36 740 ; Rule:

Question 17 | Rounding off to the nearest 10, 100 and 1000

1. Round the following numbers off to the nearest 10.

Example: In 23 743 there are 2374 tens.

To round it off to the nearest ten you must ask:

Is 23 743 closer to 2374 tens or is it closer to 2375 tens?

Answer: **23 743 \approx 23 740** (2374 tens) Use the 3 (the **units** digit) to decide.

Think:

23 743 \nearrow 23 740? ✓
 or
 \searrow 23 750?

a) 15 123 \approx b) 45 182 \approx c) 28 694 \approx d) 63 956 \approx e) 12 947 \approx f)* 83 397 \approx

2. Round the following numbers off to the nearest 100.

Example: In 14 865 there are 148 hundreds.

To round it off to the nearest hundred you must ask:

Is 14 865 closer to 148 hundreds or is it closer to 149 hundreds?

Answer: **14 865 \approx 14 900** (149 hundreds) Use the 6 (the **tens** digit) to decide.

Think:

14 865 \nearrow 14 800?
 or
 \searrow 14 900? ✓

a) 13 183 \approx b) 24 537 \approx c) 16 252 \approx d) 39 487 \approx e) 81 752 \approx *f) 53 987 \approx

3. Round off the following numbers to the nearest 1 000.

Example: In 15 356 there are 15 thousands.

To round it off to the nearest thousand you must ask:

Is 15 356 closer to 15 thousand or is it closer to 16 thousand?

Answer: **15 356 \approx 15 000** (15 thousand) Use the 3 (the **hundreds** digit) to decide.

Think:

15 356 \nearrow 15 000? ✓
 or
 \searrow 16 000?

a) 12 183 \approx b) 23 567 \approx c) 37 802 \approx d) 43 983 \approx e) 56 299 \approx f) 95 515 \approx

Question 18 | Rounding off to the nearest 10, 100 or 1000

1. Complete:

	Number	Rounded off to the nearest		
		10	100	1000
a)	81 732			
b)	45 396			
c)	15 983			

2. There are 55 348 people that live in Townsville. Round this number to the nearest 100.

3. There are 5 894 cities worldwide that have HIV programmes.

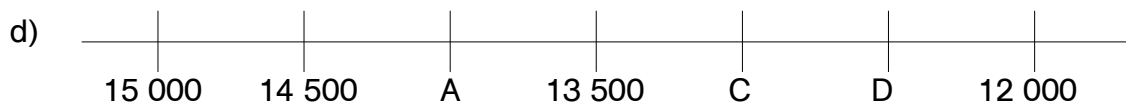
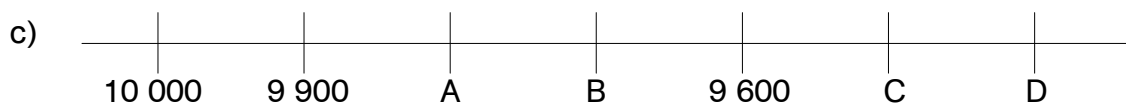
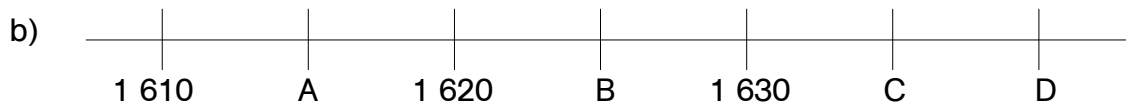
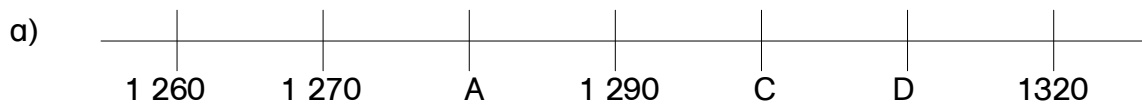
Round this number to the nearest 1000.

4. Which numbers below will give 80 when rounded off to the nearest 10?

84 68 79 88 85 91 83 76

Question 19 | Number Lines

1. Fill in the missing numbers on each number line.

**Question 20** | Place Value and Value: Challenge

1. In the number 47 321:

- the place value of the 7 is
- the value of the 4 is
- the value of the 4 plus the value of the 2 equals
- the value of the 3 minus the value of the 1 equals