

## INTEGERS

### MENTAL MATHS



Fill in the missing numbers

- 450, 455, 460, **465**
- 989, 789, 589, **389**
- 601, 604, 607, **610**

### QUESTION 1

1.1 Count forwards in 25's

115, **140, 165, 190, 215, 240**

1.2 Count backwards in 30's

495, **465, 435, 405, 375, 345**

1.3 Complete the blocks by filling in the missing numbers in the sequence

363			318	303		258
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### MENTAL MATHS

Write in words the number value of the underlined digit

- 639 **THIRTY**
- 742 **TWO**
- 921 **NINE HUNDRED**
- 429 **FOUR HUNDRED**
- 290 **NINETY**

### QUESTION 2

1. Write down the number value of each of the following underlined digits in the given column and

2. Add all the values and

3. Write the answer of the total in words

4 <u>8</u> 7	<b>80</b>
63 <u>2</u> 1	<b>1</b>
<u>6</u> 22	<b>600</b>
7 <u>3</u> 9	<b>30</b>
4 <u>2</u> 04	<b>200</b>
Total	<b>911</b>

Total written in words: **NINE HUNDRED AND ELEVEN**

## MENTAL MATHS



- ✓  $9 \times 8 = 72$
- ✓ Half of 54  $54 \div 2 = 27$
- ✓ Double 32  $32 \times 2 = 64$
- ✓  $3 + 15 + 24 + 2 = 44$
- ✓  $56 - 20 - 4 - 7 = 25$

### QUESTION 3

3.1 What is the place value of the underlined digits

a) 63 <u>4</u> 1	<b>Tens or T</b>
b) <u>2</u> 413	<b>Thousands or Th</b>
c) 94 <u>6</u>	<b>Ones or U</b>
d) <u>2</u> 822	<b>Hundreds or H</b>
e) 13 <u>6</u> 1	<b>Tens or T</b>

3.2 Write the following numbers in words

2 413 **two thousand, four hundred and thirteen**

946 **nine hundred and forty-six**

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## MENTAL MATHS



Write the numbers




- ✚ Five hundred and six **506**
- ✚ Three thousand and thirty-four **3 034**
- ✚ Two thousand eight hundred and forty-six **2 846**

### QUESTION 4

4.1 Write in expanded notation

- a)  $765 = 700 + 60 + 5$  **OR**  $7T + 6Th + 5U$
- b)  $3281 = 3000 + 200 + 80 + 1$  **OR**  $3D + 2H + 8T + 1E$
- c)  $9429 = 9000 + 400 + 20 + 9$  **OR**  $9D + 4H + 2T + 9E$
- d)  $186 = 100 + 80 + 6$  **OR**  $1H + 8T + 6U$

4.2 Write down the total

- a)  $4000 + 300 + 20 + 6 = \mathbf{4326}$
- b)  $600 + 2000 + 30 + 4 = \mathbf{2634}$
- c)  H +  D +  E =  $\mathbf{2402}$
- d)  $6 \times 1000 + 4 \times 10 + 2 \times 1 = \mathbf{6042}$

MENTAL MATHS

Closer to which number are the following numbers? Circle the correct answer in the brackets

- ❖ 16 (10 / **20**)
- ❖ 24 (**20** / 30)
- ❖ 36 (30 / **40**)
- ❖ 101 ( **100** / 200)
- ❖ 159 (100 / **200**)

QUESTION 5

5.1 Round the numbers to the nearest number written in brackets

- 1. 36 (10)  $\approx \mathbf{40}$
- 2. 456 (10)  $\approx \mathbf{460}$
- 3. 694 (10)  $\approx \mathbf{700}$
- 4. 789 (100)  $\approx \mathbf{800}$
- 5. 921 (100)  $\approx \mathbf{900}$
- 6. 462 (10)  $\approx \mathbf{460}$
- 7. 666 (100)  $\approx \mathbf{700}$
- 8. 666 (1000)  $\approx \mathbf{1000}$



5.2 Say whether the rounded numbers are = < or >

- 1. 368 (10) ..... 365 (10)       $\mathbf{370 = 370}$
- 2. 1829 (100) ..... 1900 (100)       $\mathbf{1800 < 1900}$
- 3. 929 (100) ..... 939 (10)       $\mathbf{900 < 940}$
- 4. 772 (10) ..... 760       $\mathbf{770 > 760}$
- 5. 2846 (1000) ..... 2599 (1000)       $\mathbf{3000 = 3000}$

MENTAL MATHS

Say whether the numbers are odd or even

- 295 **ODD**
- 338 **EVEN**

45 **96 24 36** 33 83 **46** 55 31 **76 88**

123 583 **846 792** 821 643 **816 222**

- 632 **ODD**
- 999 **EVEN**

QUESTION 6

6.1 Look at the numbers in the rectangle.

Circle all the even numbers

45 **96 24 36** 33 83 **46** 55 31  
**76 88**

What do you know about even numbers? .....

6.2

Help the little bee get to the honey pot by colouring in the answers to the following:

1. Add the first 3 odd numbers. **1 + 3 + 5 = 9**
2. The biggest number you can make from the digits 5,3 and 7. **753**
3.  $35 + 42 =$  **77**
4. Double 52. Is the answer odd or even? **104 EVEN**
5. Work out:  $6 \times 10 + 3 \times 100 + 2 =$  **362**
6. Give the value of the number which is written as three hundred and fifty-seven **357**
7.  $392 - 172 =$  **220**
8. Give the next number in the sequence : 173, 198, 223, **248**
9.  $648 + 30 =$  **678**
10. Half of 664 **332**

## NUMBER SENTENCES

### MENTAL MATHS

Circle the correct meaning of the symbol and then do the sum

- Increase:  $\times$ ,  $+$ ,  $-$ , or  $\div$
- Increase 28 by 36  **$28 + 36 = 64$**
- Decrease:  $\times$ ,  $+$ ,  $-$ , or  $\div$
- Decrease 45 by 20  **$45 - 20 = 25$**

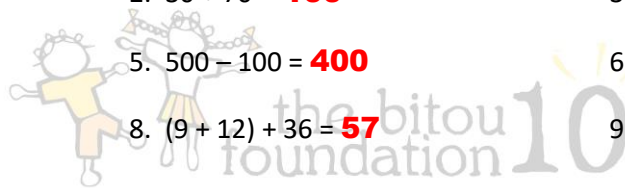
### QUESTION 1

1.1 State whether the following are true or false:

1.  $26 + 9 = 9 + 26$  **TRUE**
2.  $26 - 9 = 9 - 26$  **FALSE**

1.2 Complete the number sentences, showing working out. Remember to do what is shown in brackets first.

1.  $70 + 30 =$  **100**
2.  $30 + 70 =$  **100**
3.  $100 - 30 =$  **70**
4.  $400 + 100 =$  **500**
5.  $500 - 100 =$  **400**
6.  $500 - 400 =$  **100**
7.  $(36 + 9) + 12 =$  **57**
8.  $(9 + 12) + 36 =$  **57**
9.  $(12 + 36) + 9 =$  **57**



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### QUESTION 2

There are 45 learners in the Grade 4 class who go to school by bus, 28 learners ride to school on bicycles and the rest of the learners' parents drop them off. If there are 100 learners in Grade 4, how many learners' are dropped off by their parents?

- a. Write a number sentence to work this out:  **$45 + 28 + \square = 100$  OR  $100 - 45 - 28 = \square$**
- b. Now work out the answer showing all working out.

$$45 + 28 = 73$$

$$100 - 73 = 27$$

**27 learners are dropped off by their parents.**

### QUESTION 3

Complete by filling in the missing numbers in the spaces provided.

1.  $60 +$  **30**  $= 90$

2.  $45 -$  **25**  $= 20$

3. **50**  $+ 70 = 120$

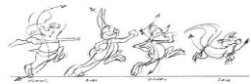
4. **85**  $- 20 = 65$

5.  $100 - 23 = 77$

6.  $5 + 58 = 63$

7.  $78 - 20 = 58$

8.  $40 + 56 = 96$

**INTEGERS: ADDING AND SUBTRACTING****MENTAL MATHS**

Add 42 repeatedly to the numbers given

- 45, **87, 129, 171, 213**
- 104, **146, 188, 230, 272**

Subtract 20 repeatedly from the numbers given

- 830, **810, 790, 770**
- 356, **336, 316, 296**

**QUESTION 1**

Estimate the answers to the sums by first rounding off

1.1 To the nearest 10

a.  $463 + 36 \approx 460 + 40 \approx 500$

b.  $527 + 85 \approx 530 + 90 \approx 620$

c.  $239 - 183 \approx 239 - 183 \approx 240 - 180 \approx 60$

d.  $46 - 29 \approx 50 - 30 \approx 20$

1.2 To the nearest 100

a.  $351 + 729 = 400 + 700 = 1\ 100$

b.  $438 + 191 = 400 + 200 = 600$

c.  $753 - 449 = 800 - 400 = 400$

d.  $663 - 488 = 700 - 500 = 200$

1.3 During the cyclone the rainfall in Mbombela was measured for a week. Here are the measurements: 115mm, 48mm, 37mm, 168mm and 93mm

a. Write out a number sentence to work out the total rainfall for the week.

$$115\text{mm} + 48\text{mm} + 37\text{mm} + 168\text{mm} + 93\text{mm} = \boxed{\phantom{000}}$$

b. Round the numbers to the nearest 10 and then give an estimated rainfall for the week. Show all working out.

<b>115 ≈ 120    93 ≈ 90</b> <b>48 ≈ 50    37 ≈ 40</b> <b>168 ≈ 170</b>  <b>470mm for the week</b>	<table border="1"> <tr><td><b>1+2</b></td><td><b>2</b></td><td><b>0</b></td></tr> <tr><td></td><td><b>5</b></td><td><b>0</b></td></tr> <tr><td><b>1</b></td><td><b>7</b></td><td><b>0</b></td></tr> <tr><td></td><td><b>9</b></td><td><b>0</b></td></tr> <tr><td></td><td><b>4</b></td><td><b>0</b></td></tr> <tr><td><b>4</b></td><td><b>7</b></td><td><b>0</b></td></tr> </table>	<b>1+2</b>	<b>2</b>	<b>0</b>		<b>5</b>	<b>0</b>	<b>1</b>	<b>7</b>	<b>0</b>		<b>9</b>	<b>0</b>		<b>4</b>	<b>0</b>	<b>4</b>	<b>7</b>	<b>0</b>
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	<b>5</b>	<b>0</b>																	
<b>1</b>	<b>7</b>	<b>0</b>																	
	<b>9</b>	<b>0</b>																	
	<b>4</b>	<b>0</b>																	
<b>4</b>	<b>7</b>	<b>0</b>																	

QUESTION 2

Vocabulary and examples

- Add by first breaking up the numbers into hundreds tens and units or ones

$$265 + 189 = 200 + 60 + 5 + 100 + 80 + 9$$

$$= 200 + 100 + 60 + 80 + 5 + 9$$

200 + 100 =	3	0	0
60 + 80 =	1	4	0
5 + 9 =		1	4
Total	4	5	4

- Breaking up the number to be added and then adding to the correct place value parts of the first number

$$265 + 189 \quad \boxed{\square} \longrightarrow 189 = 100 + 80 + 9$$

$$265 + 100 = 365 \quad \boxed{\square} \longrightarrow 365 + 80 = 445 \quad \boxed{\square} \longrightarrow 445 + 9 = 454$$

- Breaking down method for subtraction

$$297 - 164 = 200 + 90 + 7 - 100 - 60 - 4$$

$$= 200 - 100 + 90 - 60 + 7 - 4$$

200 - 100 =	1	0	0
90 - 60 =		3	0
7 - 4			3
Total	1	3	3

- Breaking up the number to be subtracted and then subtracting

$$297 - 164 \quad \boxed{\square} \longrightarrow 164 = 100 + 60 + 4$$

$$297 - 100 = 197 \quad \boxed{\square} \longrightarrow 197 - 60 = 137 \quad \boxed{\square} \longrightarrow 137 - 4 = 133$$

2.1 Calculate by first breaking down the numbers

a.  $619 + 243 = 600 + 10 + 6 + 200 + 40 + 3$

$$= 600 + 200 + 10 + 40 + 6 + 3$$




<b>600 + 200 =</b>	<b>8</b>	<b>0</b>	<b>0</b>
<b>10 + 40 =</b>		<b>5</b>	<b>0</b>
<b>6 + 3 =</b>			<b>9</b>
<b>Total</b>	<b>8</b>	<b>5</b>	<b>9</b>

b.  $766 - 254 = 700 + 60 + 6 - 200 - 50 - 4$

$$= 700 - 200 + 60 - 50 + 6 - 4$$

<b>700 - 200 =</b>	<b>5</b>	<b>0</b>	<b>0</b>
<b>60 - 50 =</b>		<b>1</b>	<b>0</b>
<b>6 - 4 =</b>			<b>2</b>
<b>Total</b>	<b>5</b>	<b>1</b>	<b>2</b>

2.2 Calculate the sums using the breaking down method of

a.  $821 + 163$    $163 = 100 + 60 + 3$   
 $821 + 100 = 921$    $921 + 60 = 981$    $981 + 3 = 984$

2.3 Use any method to solve the following problems unless you are told which one to use:

a. The big retailer bought 349 pallets of soap powder on Monday. On Tuesday, he bought a further 279 pallets. How many pallets of soap powder does he have now?

$349 + 279 = 300 + 40 + 9 + 200 + 70 + 9$   
 $= 300 + 200 + 40 + 70 + 9 + 9$

$300 + 200 =$	<b>5</b>	<b>0</b>	<b>0</b>
$40 + 70 =$	<b>1</b>	<b>1</b>	<b>0</b>
$9 + 9 =$		<b>1</b>	<b>8</b>
<b>Total</b>	<b>6</b>	<b>2</b>	<b>8</b>

b. The football match during COVID-19 may have only 845 people in the pavilion. On Wednesday 246 tickets were sold, on Thursday 444 tickets were sold.

i. Calculate how many tickets were sold.

$200 + 400 = 600$                       **Total : 690 tickets sold**  
 $40 + 40 = 80$   
 $6 + 4 = 10$

ii. Are there still open spaces in the pavilion? "supporting schooling for excellence"

**Yes because there's space for 845 and only 690 tickets were sold**

iii. Use the breaking up method of subtraction to find out how many tickets are still available to sell.

$845 - 690 = 800 + 40 + 5 - 600 - 90 - 0$   
 $800 - 600 = 200 - 100 = 100$   
 $100 + 40 - 90 = 140 - 90 = 50$   
 $5 - 0 = 5$   
**Total: 155      155 tickets can still be sold**



QUESTION 3

The Super Supermarket sells many packs of 5kg chicken pieces during the week. The table shows the sales recorded everyday during two weeks.

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
WEEK 1	394	261	167	229	146
WEEK 2	456	382	791	188	194

Now use this information to answer these questions. Use any of the addition and subtraction methods given.

1. How many packs of 5kg chicken pieces were sold on Wednesday and Thursday of week 1?

$$167 + 229 = 100 + 60 + 7 + 200 + 20 + 9$$

$$100 + 200 = 300 \qquad 7 + 9 = 16$$

$$60 + 20 = 80 \qquad \text{Total: } 396 \quad 396 \text{ packs are sold}$$

2. How many more packs were sold on Monday of week 2 than on Friday of week 1?

$$456 - 146 = 400 + 50 + 6 - 100 - 40 - 6$$

$$400 - 100 = 300$$

$$50 - 40 = 10$$

$$6 - 6 = 0$$

$$\text{Total: } 310$$

$$310 \text{ more packs were sold}$$

3. On which day, of which week were the most packs sold? **Wednesday in week 2**

4. Round the answer from number 3 to the nearest 100. **800**

5. Give an approximate answer as to how many packs of chicken were sold on the Monday of week 1 and the Thursday of week 2.

a. First round off the quantity of pieces sold on the Monday of week 1 to the nearest 100 and those sold on the Thursday of week 2 to the nearest 10

$$394 \approx 400 \qquad 188 \approx 190$$

b. Now add the rounded off answers using the expansion or breaking down method

$$400 + 100 + 90$$

$400 + 100 =$	5	0	0
$0 + 90 =$		9	0
$0 + 0 =$			0
<b>Total</b>	5	9	0

c. Complete: I estimate the number of packs of chicken pieces sold to be **590**

6. By using rounding up to the nearest 100, estimate in which week the most packs of chicken pieces were sold.

WEEK 1 Round off and count in 100s

**M – 394 ≈ 400**

**D – 261 ≈ 300**

**W – 167 ≈ 200**

**D – 229 ≈ 200**

**V - 146 ≈ 100**

**TOTAL : 1200 packs were sold in week 1**

WEEK 2 Round off and count in 100s

**M – 456 ≈ 500**

**D – 382 ≈ 400**

**W – 791 ≈ 800**

**D – 188 ≈ 200**

**V - 194 ≈ 200**

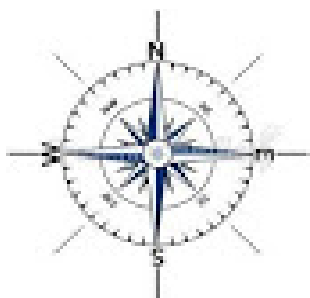
**TOTAL : 2100 packs are sold in week 2**



In which week do you estimate that the most packets of chicken were sold? **In week 2**

QUESTION 4

Use the compass given to find out in which BLOCK our traveller John will end up in.



	A	B	C	D	E	F	G
1							
2							
3							
4				JOHN			
5							
6							
7							

After each instruction, say in which block John will be, eg A4

- Where does John start **D4**
- Three blocks West **A4**
- Two blocks South **A6**
- Five squares East **F6**
- Five blocks North **F1**
- Four blocks West **B1**
- Five squares South **B6**
- One block West **A6**

If John had started in South Africa, in what continent do you think he would have ended up? **South America**