



"supporting schooling for excellence"

NAME: \_\_\_\_\_ **MEMO** \_\_\_\_\_

GRADE: **6**



TERM: **1** "supporting schooling for excellence"

TEACHER: \_\_\_\_\_

SCHOOL: \_\_\_\_\_

## QUICK MATHS

1

Give the place value of the underlined digit

- 38 471            H
- 527 184           TT
- 2812 345           M

Round 457 283 off to the nearest

- 5 :        457 285
- 10:      457 280
- 1 000: 458 000

Add the numbers after rounding off to the nearest 10

- $35\,479 + 23\,523$   
=  $35\,480 + 23\,520$   
=  $59\,000$
- $823\,254 + 73\,898$   
=  $823\,250 + 73\,900$   
=  $897\,150$

2

Calculate

$$5\,421 + 7\,211 = 12\,632$$

$$2\,034 + 8\,022 = 10\,056$$

$$45\,287 + 32\,511 = 77\,798$$

$$67\,185 + 72\,113 = 140\,031$$

$$73\,918 + 62\,031 = 135\,949$$

Arrange the numbers in descending order

52 384; 52 348; 52 834; 52 438

**52 834; 52 438; 52 384; 52 348**

Use <; >; or =

$$6\,834 > 6000 + 300 + 80 + 4$$

$$523 < 5000 + 20 + 3$$

3

Calculate

$$5\,834 - 2\,613 = 3\,221$$

$$8\,762 - 5\,230 = 3\,532$$

$$7\,894 - 6\,782 = 1\,112$$

$$52\,679 - 41\,527 = 11\,152$$

$$84\,219 - 61\,005 = 23\,214$$

Arrange the numbers in ascending order

89 862; 89 986; 89 698; 89 896

**89 698; 89 862; 89 896; 89 986**

Round the numbers off to the nearest 100 and then subtract

$$65\,492 - 63\,526$$

$$= 65\,500 - 63\,500$$

$$= 2\,000$$

4

Calculate

$$32 + (15 - 3) = 44$$

$$152 - (39 + 52) = 61$$

$$38 + 26 - (5 \times 6) = 34$$

$$(24 \times 3) + 18 - 90 = 0$$

$$10 \times 8 - 25 \div 5 = 75$$

$$2\,840 - (523 + 866) = 1\,451$$

$$6\,000 - (882 + 1\,830)$$

$$= 3\,288$$

$$62 + 125 + 864 - 999$$

$$= 52$$

5

Calculate

$$\begin{array}{r} 7\ 9\ 8 \\ +\ 7\ 9\ 9 \\ \hline 1\ 5\ 9\ 7 \end{array}$$

$$\begin{array}{r} 6\ 8\ 4\ 5\ 2 \\ +\ 3\ 8\ 7\ 6\ 8 \\ \hline 1\ 0\ 7\ 2\ 2\ 0 \end{array}$$

$$\begin{array}{r} 9\ 6\ 2\ 1 \\ +\ 2\ 1\ 1\ 3 \\ +\ 5\ 2\ 3\ 9 \\ \hline 1\ 6\ 9\ 7\ 3 \end{array}$$

$$\begin{array}{r} 1\ 1\ 1\ 2\ 3 \\ +\ 3\ 5\ 8\ 9\ 1 \\ +\ 8\ 1\ 2\ 4\ 6 \\ \hline 1\ 2\ 8\ 2\ 6\ 0 \end{array}$$

6

Calculate

$$\begin{array}{r} 7\ 9\ 8 \\ -\ 5\ 9\ 9 \\ \hline 1\ 9\ 9 \end{array}$$

$$\begin{array}{r} 6\ 8\ 9\ 9\ 0 \\ -\ 3\ 8\ 7\ 6\ 8 \\ \hline 3\ 0\ 2\ 2\ 2 \end{array}$$

$$\begin{array}{r} 9\ 6\ 0\ 0\ 0 \\ -\ 5\ 8\ 9\ 8\ 9 \\ \hline 3\ 7\ 0\ 1\ 1 \end{array}$$

$$\begin{array}{r} 1\ 2\ 9\ 3\ 6 \\ -\ 8\ 2\ 9\ 7 \\ \hline 4\ 6\ 3\ 9 \end{array}$$

## QUICK MATHS

**7**

Calculate

$8 \times 9 = 72$	$9 \times 5 = 45$
$3 \times 6 = 18$	$6 \times 6 = 36$
$7 \times 3 = 21$	$8 \times 4 = 32$
$3 \times 12 = 36$	$7 \times 8 = 56$
$5 \times 12 = 60$	$9 \times 9 = 81$
$8 \times 6 = 48$	$10 \times 0,7 = 7$
$4 \times 9 = 36$	$11 \times 8 = 88$
$12 \times 7 = 84$	$6 \times 7 = 42$
$7 \times 5 = 35$	$10 \times 0,3 = 3$
$8 \times 8 = 64$	$6 \times 4 = 24$
$15 \times 3 = 45$	$4 \times 13 = 52$
$9 \times 2 = 18$	$7 \times 7 = 49$

**8**

Calculate

	2	4		
x		7		
1	6	8		

	1	6	5	
x			9	
1	4	8	5	

		7	5	2
x			2	8
1	6	0	1	6
2	1	0	5	6

		9	8	3
x			5	4
4	3	9	3	2
5	3	0	8	2

**9**

Calculate

$28 \div 2 = 14$	$25 \div 5 = 5$
$36 \div 6 = 6$	$30 \div 3 = 10$
$24 \div 8 = 3$	$56 \div 8 = 7$
$21 \div 7 = 3$	$63 \div 3 = 21$
$27 \div 3 = 9$	$72 \div 8 = 9$
$102 \div 2 = 51$	$45 \div 15 = 3$
$60 \div 12 = 5$	$35 \div 5 = 7$
$48 \div 6 = 8$	$81 \div 9 = 9$
$50 \div 5 = 10$	$35 \div 5 = 7$
$51 \div 3 = 17$	$99 \div 9 = 11$
$22 \div 11 = 2$	$49 \div 7 = 7$
$65 \div 5 = 13$	$64 \div 8 = 8$

**10**

Calculate

	3	8	
5	1	9	0

	1	1	2
7	7	8	4

	6	3	r2
9	5	6	9

	1	4	7	r1
6	8	8	3	

	1	6	3
4	6	5	2

	1	2	3
8	9	8	4

**11**

Calculate

$125 - 10 \times 5 + 2 \times 3 = 81$

$23 \times 2 + 18 \div 2 + 4 = 59$

$88 \div 11 \times 3 + 50 - 26 = 74$

$14 \times 7 + 24 \div 6 = 102$

	1	2	1	9	r1
8	9	7	5	3	

	8	8	2	r4
7	6	1	7	8

	1	9	4	2	r20
23	4	4	6	8	6

**12**

Calculate

$54\ 682 + 67\ 468 + 29\ 753 = 151\ 903$

$26\ 921 + 84\ 454 - 100\ 564 = 10\ 811$

$531\ 954 - 431\ 855 + 92\ 431 = 192\ 530$

$200 \times 8 + 85\ 100 - 23\ 782 = 62\ 918$

$945 \div 9 - 55 + 239 = 289$

$1\ 268\ 462 - 987\ 358 = 281\ 104$

## WHOLE NUMBERS

### QUESTION 1 Circle the correct answer

For question 1 the number 39 842 is used

1.1 What is the place value of the underlined digit?

- a) Eight hundred   b) A hundredth   c) **Hundred**   d) One hundred

1.2 Circle the number's correct number name

- a) thirty-nine eight and forty-two  
b) **thirty-nine thousand eight hundred and forty-two**  
c) three hundred ninety-eight thousand and forty-two  
d) thirty-nine million eight hundred and forty-two

1.3 The number can also be written as:

a)  **$30\,000 + 9\,000 + 2 + 40 + 800$**

b)  $39\,000 + 8\,000 + 40 + 2$

c)  $9\,000 + 8\,000 + 400 + 20 + 3$

d)  $3\,000 + 90\,000 + 800 + 20 + 4$

1.4 If 22 680 is added to the number, what is the new value?

- a) 63 542   b) 62 542   c) 63 522   d) **62 522**

1.5 If 22 680 is subtracted from the number, what is the new value?

- a) **17 162**   b) 27 162   c) 7 162   d) 17 612

1.6 Is the number an even or an odd number?   **EVEN NUMBER**

1.7 Half the number

**$39\,842 \div 2 = 19\,921$**

1.8 Double the number

**$39\,842 \times 2 = 79\,684$**

1.9 Round the number off to the nearest 1000   **40 000**

### QUESTION 2

2.1 Add the following numbers

**$45\,632 + 86\,128 + 74\,324 = 206\,084$**

2.2 Subtract 123 956 from 986 157

$$986\ 157 - 123\ 956 = 862\ 201$$

2.3 Calculate

$$86\ 479 + 135\ 945 - 78\ 990$$

$$86\ 479 + 135\ 945 = 222\ 424$$

$$222\ 424 - 78\ 990 = 143\ 434$$

2.4 Use <; > or =

a)  $6\ 000 + 60 + 6 < 6\ 000 + 600 + 6$

b)  $86\ 478 > 86\ 465$

c)  $800 + 1\ 000 + 50 + 6 > 80 + 1\ 000 + 500 + 6$

2.5 Write the numbers in descending order

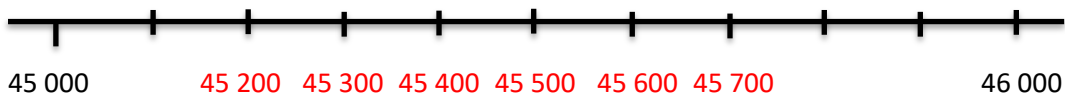
62 318; 63 381; 62 183; 62 813; 62 831

63 381; 62 831; 62 813; 62 318; 62 183

2.6 Round the numbers off to the nearest multiples of a 100 and arrange them in ascending order on the number line

45 456; 45 645; 45 321; 45 681; 45 239; 45 398

45 500; 45 600; 45 300; 45 700; 45 200; 45 400



2.7 There are 9 850 passengers on a cruise ship. At the first port 1 240 passengers embark (go on board the ship). At the second port 2 800 passengers disembark (leave the ship).

a) How many passengers were on board after the first port?

$$9\ 850 + 1\ 240 = 11\ 090 \text{ passengers}$$

b) How many passengers were on board after the second port?

$$11\ 090 - 2\ 800 = 8\ 290 \text{ passengers}$$

c) How many meals must be prepared after the second port stop, if the passengers eat 3 meals per day?

$$8\ 290 \times 3 = 24\ 870 \text{ meals}$$

**ADD, SUBTRACT AND MULTIPLY**

**QUESTION 3 Circle the correct answer**

3.1  $7\ 894 - 2\ 685 =$

- a) 5 211    b) 5 119    c) 5 209    d) 4 811

3.2  $56\ 754 + 79\ 412 =$

- a) 1 216 166    b) 136 166    c) 238 196    d) 148 166

3.3  $189 \times 4 =$

- a) 4 239    b) 533    c) 4 356    d) 756

3.4  $36 \times 2 + 15 - 4 =$

- a) 83    b) 608    c) 792    d) 49

3.5  $3 \times 5 + 2 \times 4 + 36 =$

- a) 840    b) 59    c) 61    d) 120

3.6 The multiples of 7 between 20 and 50 are:

- a) 21; 28; 35; 42; 49    b) 27; 34; 41; 48    c) 20; 27; 34; 41; 48    d) 24; 31; 38; 45

3.7 The factors of 24 are:

- a) 1; 2; 3; 4; 7; 9; 12; 24    b) 2; 3; 4; 12; 24    c) 1; 4; 12; 24    d) 1; 2; 3; 4; 6; 8; 12; 24

3.8 The prime numbers between 0 and 10

- a) 1; 2; 3; 5; 7; 9    b) 2; 3; 5; 7; 9    c) 2; 3; 5; 7    d) 1; 2; 3; 5; 7

**QUESTION 4**

4.1 Calculate

a) Add the following numbers using the column method

$43\ 159 + 85\ 965 + 71\ 156$

4	3	1	5	9	
8	5	9	6	5	
7	1	1	5	6	
<hr/>					
2	0	0	2	8	0

- b) Round the numbers off to the nearest 1 000 to get an estimate value. Then add the numbers given. Are the values nearly the same? With how much does the values differ?

$$156\,987 + 730\,822$$

$$157\,000 + 731\,000 = 888\,000 \text{ (estimated value)}$$

$$156\,987 + 730\,822 = 887\,809 \text{ (real values)}$$

$$888\,000 - 887\,809 = 191 \text{ are the difference}$$

4.2 Calculate by using the column method

a)  $565 \times 6$

$$\begin{array}{r} 565 \\ \times 6 \\ \hline 3390 \end{array}$$

b)  $4185 \times 24$

$$\begin{array}{r} 4185 \\ \times 24 \\ \hline 16740 \\ 83700 \\ \hline 100440 \end{array}$$



c)  $6841 \times 934$

$$\begin{array}{r} 6841 \\ \times 934 \\ \hline 27364 \\ 205230 \\ 6156900 \\ \hline 6389494 \end{array}$$

4.3 Add the product of 56 and 9 to the difference of 7 951 and 5 133

$$56 \times 9 = 504$$

$$7\,951 - 5\,133 = 2\,818$$

$$2\,818 + 504 = 3\,322$$

4.4 a) A school of 328 learners are visiting Jukani to view the wild cats. Jukani is charging the school a discounted rate of R32 per learner. How much must the school pay Jukani?

$$328 \times R32 = R10\ 496$$

b) If a cold drink is R15 and a sandwich R10, how much extra will the school pay if each learner received these for lunch?

$$R15 + R10 = R25$$

$$R25 \times 328 = R8\ 200 \text{ extra}$$

4.5 In a town in the Free State the following rainfall, measured in millimetres, fell over a 12-month period

25; 12; 3; 35; 8; 61; 13; 19; 25; 41; 18; 0;

a) How much rainfall was recorded in the 12 months?

$$260\text{mm}$$

b) It was worked out that a tree will grow 12cm for each 2mm of rain that falls. How tall will a tree grow, that is 480cm high with the rainfall over the 12 months?

$$260 \div 2 = 130\text{mm}$$

$$130 \times 12 \text{ cm} = 1\ 560\text{cm}$$

$$480 + 1\ 560 = 2\ 040\text{cm}$$



c) A nursery charges R12 per cm of a tree that is sold. How much will they charge for the tree in number b)?

$$2\ 040 \times R12 = R24\ 480$$

4.6 Your mother sends you to the shop to buy sugar, milk, butter, potatoes and tomatoes. You will have to work out which quantities are the best buys to save money. (Circle the cheapest item and add the values together)

Sugar:	500g for R15	1kg for R25	2.5kg for R65	R25
Milk:	500ml for R5	1L for R15	2L for R26	R5
Butter:	250g for R15	500g for R35	1kg for R55	R55
Potatoes:	1kg for R20	2.5kg for R45	3kg for R57	R45
Tomatoes:	500g for R8	2kg for R30	5kg for R100	R30

Total value for the groceries: R160

4.7 A = {5; 6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 23; 24; 25}

Use the values from A to answer the questions



- a) Write down the prime numbers **5; 7; 11; 13; 17; 19; 23;**
- b) Write down the multiples of 6 **6; 12; 18; 24**
- c) Write down the numbers that are divisible by 3 **6; 9; 12; 15; 18; 21; 24**
- d) Write down the factors of 20 **5; 10; 20**
- e) Is there a factor of 18 and 24 that's the same?

Factors of 18: **6; 9; 18**

Factors of 24: **6; 8; 12; 24**

Circle the answer: **YES** / NO

## DIVISION

### QUESTION 5

5.1 Use the number **8 217** to answer the following questions

a) Is the number an even or an odd number? **ODD NUMBER**

b) Can 3 be divided into 8 217 without a remainder? Show all the steps.

$$\begin{array}{r} 2739 \\ 3 \overline{) 8217} \end{array}$$

**3 can divide into the number without a remainder**

c) If 69 is added to the number, can it still be divided by 3 without a remainder? Show all the steps.

$$8\,217 + 69 = 8\,286$$

$$\begin{array}{r} 2762 \\ 3 \overline{) 8286} \end{array}$$

d) Divide the number by 9.

$$\begin{array}{r} 913 \\ 9 \overline{) 8217} \end{array}$$

e) Halve the number. Is there a remainder? Why do you think this happened?

$$\begin{array}{r} 4108\,r1 \\ 2 \overline{) 8217} \end{array}$$

**The number has a remainder because it is an odd number**

5.2 Divide

a)

$$\begin{array}{r} 86\,r5 \\ 22 \overline{) 1897} \end{array}$$

b)

$$31 \overline{) 5284} \begin{array}{r} 170 \\ \text{r}14 \end{array}$$

c)

$$42 \overline{) 9992} \begin{array}{r} 237 \\ \text{r}38 \end{array}$$

5.3 Use the CLUE BOARD to do the division

a)  $9576 \div 143 = 66 \text{ r}138$

CLUE BOARD
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b)  $8467 \div 243 = 34 \text{ r}205$



CLUE BOARD
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5.4 A hotel has 520 rooms with 4 beds per room.

a) How many beds are there in the hotel?

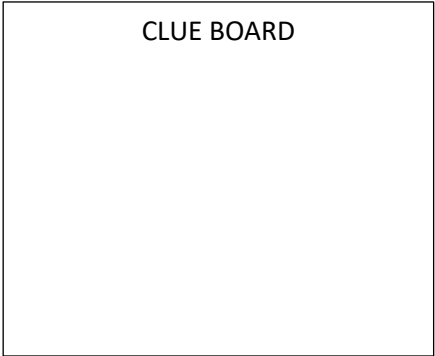
$$520 \times 4 = 2080 \text{ beds}$$

b) A school with 672 learners is going away for an outing and are staying in this hotel. How many rooms must the school reserve for the learners?

$$672 \div 4 = 168 \text{ rooms}$$

c) How much money must each learner pay if the weekend cost is R13 440?

$$R13\ 440 \div 672 = R20 \text{ elke leerder betaal R20}$$



**WHOLE NUMBERS: ADD, SUBTRACT, DIVIDE, MULTIPLY**

**QUESTION 6**

Calculate

a)  $56\ 456 + 78\ 921 + 12\ 934 - 45\ 623$

$$56\ 456 + 78\ 921 + 12\ 934 = 148\ 311$$

$$148\ 311 - 45\ 623 = 102\ 688$$

b)  $56\ 231 \times 4 + 158\ 421 \div 3$

$$56\ 231 \times 4 = 224\ 924$$

$$158\ 421 \div 3 = 52\ 807$$

$$224\ 924 + 52\ 807 = 277\ 731$$



c)  $1\ 564\ 823 - 952\ 746 = 612\ 077$

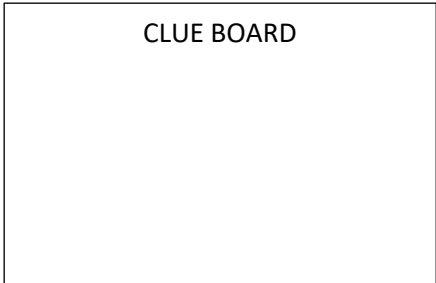
d) Multiply the biggest prime number less than 100 by 48.

$$97 \times 48 = 4\ 656$$

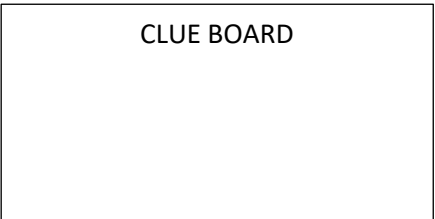
e) Is 2022 a leap year? Show all the steps.

$$2\ 022 \div 4 = 505 \text{ r}2$$

2 022 is not a leap year



f)  $7\ 258 \div 36 = 201 \text{ r}22$



g)  $3\ 942 \div 3 - 261 \times 4$

$$= 1\ 314 - 1\ 044 = 270$$