Carlingford High School

Mathematics

Year 7 Term 3 Examination

2020

Name: ANSWER SHEET Class: 7 ___

Circle your teacher's name:

Mrs Lobejko/Mrs Lego
Mrs Wilson/Mrs Young
Mrs Blakeley/Mrs Sharma
Mr Gong/Mrs Virmani
Mr Cheng
Mrs Virmani
Mrs Tang
Mr Wilson

Time allowed: 50 minutes

- Show all necessary working.
- Marks may be deducted for careless or untidy work.
- Complete the examination in blue or black pen.
- All questions are worth one mark unless stated otherwise.
- **Calculators may be used.**

Topic	Decimals	Algebra	Literacy	Problem Solving	Total
Total	/33	/30	/4	/3	/70

Mrs Tang

Section A: Decimals (33 marks)

1. Four hundredths, 5 thousandths and three ten thousandths is equal to:

   A. 4.53 (B.) 0.0453

   C. 0.005 43 D. 0.05043

2. 0.837 256 rounded to the nearest hundredth is:

   A. 0.83 (B.) 0.84

   C. 0.837 D. 0.8

3. Convert $\frac{3}{5}$ to a decimal.

   A. 3.5 (B.) 0.6

   C. 5.3 D. 6.0

4. The best estimate for 6.72×3.34 is:

   A. 18 B. 200

   (C.) 21 D. 2000

5. How many decimal places are in the answer to 129.2×0.2?

   A. 1 (B.) 2

   C. 3 D. 4

6. Evaluate $\$40 - 35c$

   40.00 −
   0.35
   $39.65

   must have $ or ¢

7. Find the product of 5.24 and 26

   5.24 ×
   26
   136.24

8. Write in ascending order:
   0.6055, 0.5506, 0.607

   0.5506, 0.6055, 0.607

9. Round off to 1 decimal place:

   a) $5.28 \approx$ 5.3

   b) $367.84 \approx$ 367.8

   c) $19.96 \approx$ 20.0

   [3]

10. The temperature rose from 17.7°C to 21.4°C. How much did it rise?

    21.4 − 17.7 = 3.7

    The temperature rose 3.7°C

11. Evaluate: $(3.6)^2 + \sqrt{1.44}$

    = 14.16 or $\frac{354}{25}$ or $14\frac{4}{25}$

12. Evaluate: $\frac{5.12+6.4}{25}$

    = 0.4608 or $\frac{288}{625}$

13. Give an EXACT answer to:

    $0.56 \div 0.3$

    $= 1.8\dot{6}$

    or $1\frac{13}{15}$ or $\frac{28}{15}$

Mr Gong

14. Copy and complete by placing $<, >$ *or* $=$ in the space:

a) $0.56 \underline{<} 0.6$

b) $\frac{19}{20} \underline{=} 0.95$

c) $7 \underline{>} 6.95$

[3]

15. Convert these fractions to decimals:

a) $\frac{9}{10} = \underline{0.9}$

b) $3\frac{3}{4} = \underline{3.75}$

c) $\frac{5}{6} = \underline{0.8\dot{3}}$

[3]

16. A chemistry experiment requires 0.5g of one chemical and 0.075g of another chemical. Find the total mass of chemicals needed for the experiment.

$$\begin{array}{r} 0.5 \\ 0.075 \\ \hline 0.575 \end{array} +$$

The total mass is 0.575g

[2]

17. Jo has travelled 15.2 km of a 25km journey. How far does she have left to travel?

$$\begin{array}{r} 25 \\ 15.2 \\ \hline 9.8 \end{array} -$$

Jo has 9.8km to go

[2]

18. Jack ran three 100m sprints. His times were 11.52s, 11.03s and 11.8s. Find his average time.

$$\frac{11.52 + 11.03 + 11.8}{3}$$

$$= \frac{34.35}{3}$$

$$= 11.45$$

The average is 11.45s

[2]

19. Daniel buys 2 pens which are \$1.95 each. How much change does he receive from \$5?

$5 - 2 \times 1.95$

$= 1.1$

The change is \$1.10

[2]

20. A PE teacher buys 20 basketball jerseys worth \$56.50 each. Find the total cost of the jerseys.

$\$56.50 \times 20$

The total cost is \$1130

[2]

21. A 1.2km taxi ride costs \$11.40. Find the price per kilometre.

$\$11.40 \div 1.2$

Price is \$9.50/km

[2]

Mrs Virmani

Section B: Algebra (30 marks)

1. Simplify $a + a + a + b + b$

A. $a^3 + b^2$

B. $6ab$

C. $3a + 2b$

D. $5ab$

2. Simplify $7 + 5 \times p$

A. $12p$

B. $7 + 5p$

C. $7 + \frac{5}{p}$

D. $35p$

3. Simplify:

a) $m + m + m + m =$ $4m$

b) $8y - y =$ $7y$

c) $6 \times a \times 2 =$ $12a$

d) $8d \times 2d =$ $16d^2$

e) $5y + 3 \times 4y =$ $5y + 12y$

$= 17y$

[5]

4. If N is the number write an expression for:

a) The sum of the number and 3.

$N+3$

b) The number decreased by 7.

$N-7$

c) Half the product of the number and 5.

$\frac{5N}{2}$

[3]

5. Write in expanded form:

a) $7pq =$ $7 \times p \times q$

b) $4k^3 =$ $4 \times k \times k \times k$

[2]

6. Simplify

a) $4x - 6y - 7y + 10x$

$=$ $14x - 13y$

b) $\frac{8m^2n}{10mn}$

$= \frac{4m}{5}$

[4]

Mr Cheng

7. Expand and simplify:

a) $6(y+2) =$ $6y+12$

b) $4(2t-5) =$ $8t-20$

c) $5p-(2+3p) =$ $5p-2-3p$
$= 2p-2$

[4]

8. If $a=3,\ b=5$ *and* $c=-2$ find:

a) $4b =$ 4×3
$= 12$

b) $2b-a =$ $2\times5-3$
$= 7$

c) $c^2 =$ $(-2)^2$
$= 4$

9. If $m=0.2,\ n=5$ *and* $p=-1$ find:

a) $m(n-p) =$ $0.2(5--1)$
$= 0.2\times6$
$= 1.2$

b) $\frac{m^2+2p}{n} =$ $\frac{(0.2)^2+2(-1)}{5}$
$= \frac{0.04-2}{5}$
$= -0.392$

[4]

10. If $m=2n-7$ find m when:

a) $n=5$ $m=2\times5-7$
$m=3$

b) $n=1$ $m=2\times1-7$
$m=-6$

c) $n=-4$ $m=2\times(-4)-7$
$m=-15$

[3]

Literacy (4 marks)

1. Circle the "like terms".

$4s^2t$, $-5st$, $2t^2s$, $-6ts^2$

2. Consider $5y^3$, write down the:

a) index 3

b) coefficient 5

c) base y

Extra Working Space

a) or $1\frac{1}{5}$ or $\frac{6}{5}$

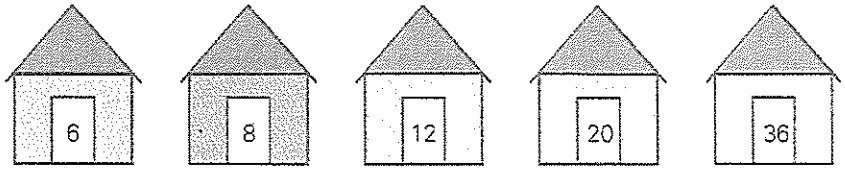
b) or $-\frac{49}{125}$

Mr Cheng

Problem Solving : (3 marks)

1.

The illustration below shows a row of houses with the house number shown on the door.



a) How many houses would there be before number 6?

one

b) Find the number of the house two doors up from number 36.

$36 + 32 + 64 = 132$

2.

If the pattern in the following 5 by 5 square is completed, what is the sum of all the numbers?

2	3	5	8	13
4	7	11	18	29
6	10	16	26	42
10	17	27	44	71
16	27	43	70	113

Sum 31
69
100
169
269
638