# Carlingford High School



# Mathematics
## Year 7 Term 3 Examination
## 2020

Name: _____  Class: 7 ___

**Circle your teacher's name**:

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

| **Section A: Decimals ( 33 marks)** | |
|---|---|
| 1. Four hundredths, 5 thousandths and three ten thousandths is equal to:<br><br>   A.  4.53         B.    0.0453<br><br>   C.  0.005 43      D.    0.05043 | 8. Write in ascending order:<br>   0.6055, 0.5506, 0.607 |
| 2. 0.837 256 rounded to the nearest hundredth is:<br><br>   A.  0.83         B.    0.84<br><br>   C.  0.837        D.    0.8 | 9. Round off to 1 decimal place:<br><br>a)        $5.28 \approx$ _____<br><br>b)       $367.84 \approx$ _____ |
| 3. Convert $\dfrac{3}{5}$ to a decimal.<br><br>   A. 3.5          B.    0.6<br><br>   C.  5.3          D.    6.0 | c)        $19.96 \approx$ _____<br><br><div align="right">[3]</div> |
| 4. The best estimate for $6.72 \times 3.34$ is:<br><br>   A. 18           B.    200<br><br>   C.  21          D.    2000 | 10. The temperature rose from<br>   17.7°C  to 21.4°C. How much did it rise? |
| 5. How many decimal places are in the answer to $129.2 \times 0.2$?<br><br>   A.  1           B.    2<br><br>   C.  3           D.    4 | 11. Evaluate: $(3.6)^2 + \sqrt{1.44}$ |
| 6. Evaluate $\$40 - 35c$ | 12. Evaluate:    $\dfrac{5.12+6.4}{25}$ |
| 7. Find the product of  5.24  and 26 | 13. Give an EXACT answer to:<br>   $0.56 \div 0.3$ |

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

a)  0.56 _____ 0.6

b)  $\dfrac{19}{20}$ _____ 0.95

c)  7 _____ 6.95

[3]

15. Convert these fractions to decimals:

a)  $\dfrac{9}{10} =$ _____

b)  $3\frac{3}{4} =$ _____

c)  $\dfrac{5}{6} =$ _____

[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.

[2]

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

[2]

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

[2]

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

[2]

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

[2]

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

[2]

**Section B: Algebra (30 marks)**

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

   A.  $a^3 + b^2$

   B.  $6ab$

   C.  $3a + 2b$

   D.  $5ab$

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

   a) The sum of the number and 3.

   b) The number decreased by 7.

   c) Half the product of the number and 5.

   [3]

2. Simplify $7 + 5 \times p$

   A.  $12p$

   B.  $7 + 5p$

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

   D.  $35p$

5. Write in expanded form:

   a) $7pq =$

   b) $4k^3 =$

   [2]

3. Simplify:

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

b) $8y - y =$

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

d) $8d \times 2d =$

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

   [5]

6. Simplify

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

   $=$

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

   $=$

   [4]

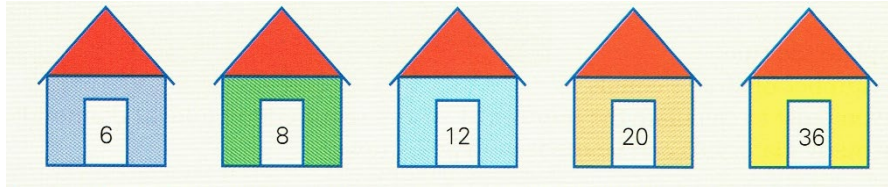| | |
|---|---|
| 7.  Expand and simplify:<br><br>a)   $6(y + 2) =$<br><br>b)   $4(2t - 5) =$<br><br>c)   $5p - (2 + 3p) =$<br><br><br>[4] | 10.  If $m = 2n - 7$ find $m$ when:<br><br>a) $n = 5$<br><br>b) $n = 1$<br><br>c) $n = -4$<br><br>[3] |
| 8. If $a = 3$, $b = 5$ and $c = -2$ find:<br><br>a)   $4b =$<br><br><br>b)   $2b - a =$<br><br><br>c)    $c^2 =$ | **Literacy (4 marks)**<br>1. Circle the "like terms".<br><br>$\quad 4s^2t, \quad -5st, \quad 2t^2s, \quad -6ts^2$<br><br>2. Consider $5y^3$, write down the:<br><br>a)  index<br><br>b)  coefficient<br><br>c)  base |
| 9. If $m = 0.2$, $n = 5$ and $p = -1$ find:<br><br>a)    $m(n - p) =$<br><br><br><br>b)   $\dfrac{m^2 + 2p}{n} =$<br><br><br>[4] | **Extra Working Space** |

**1.**

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



a) How many house/s would there be before number 6?

b) Find the number of the second house to the right of number 36.

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 | | |
| 6 | 10 | | | |
| 10 | | 27 | | |
| 16 | | | | |