

## Year 5 Term 1 Homework

<b>Student Name:</b> _____	<b>Grade:</b> _____
<b>Date:</b> _____	<b>Score:</b> _____

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## 4 Year 5 Term 1 Week 4

### 4.1 Topic 1 — Order of Operations

1. Write the basic numeral for the following:

(a)  $[(14 + 35) \div 7] \times 9 =$  \_\_\_\_\_

(b)  $[8 + (8 \times 8)] \div 8 =$  \_\_\_\_\_

(c)  $[(140 \div 14) - 7] - 5 =$  \_\_\_\_\_

(d)  $(36 \div 3) + (45 \div 9) \times 6 =$  \_\_\_\_\_

(e)  $5 \times [(4 + 7) \times (6 \times 3)] - 12 =$  \_\_\_\_\_

(f)  $12 \times (16 - 4) \div 4 \div (12 - 8) =$  \_\_\_\_\_

2. Insert the grouping symbols to make the following statements true:

(a)  $25 + 19 \times 0 = 0$  \_\_\_\_\_

(b)  $18 - 10 \times 9 = 72$  \_\_\_\_\_

(c)  $24 + 12 \div 3 + 6 = 4$  \_\_\_\_\_

(d)  $121 \div 11 - 5 \times 7 = 42$  \_\_\_\_\_

(e)  $19 + 8 - 7 \times 4 = 23$  \_\_\_\_\_

(f)  $16 + 12 \div 8 - 6 = 14$  \_\_\_\_\_

(g)  $64 \div 18 - 2 + 9 = 13$  \_\_\_\_\_

(h)  $270 \div 12 - 3 - 6 = 24$  \_\_\_\_\_

3. A sum of \$468 is divided among 16 men, 14 women and 9 children. Each man gets \$9.00 and each woman gets \$3.00 less than each man. How much does each child get?

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4. Three brothers bought 6 kites each. If they received \$46 from a 100-dollar note, what was the cost of each kite?

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### 4.2 Topic 2 — Finding the Missing Numbers

1. Use the rule to complete each pattern below:

(a)  $y = 2x^2 + 2$

x	3	4	5	6	7	8	9
y							

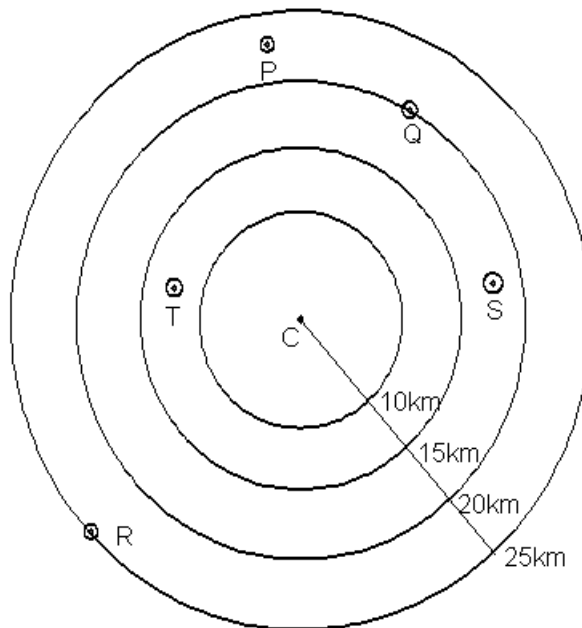
(b)  $s = (t - 2)^2 + 4$

t	3	4	5	6	7	8	9
s							

(c)  $2q^2 - q = r$

q	3	4	5	6	7	8	9
r							

2. Find the missing measurements:



(a) Town P is about \_\_\_\_\_ from the centre of the city.

(b) Town Q is about \_\_\_\_\_ from the centre of the city.

(c) Town R is about \_\_\_\_\_ from the centre of the city.

(d) Town S is about \_\_\_\_\_ from the centre of the city.

(e) Town T is about \_\_\_\_\_ from the centre of the city.

**4.3 Topic 3 — Decimal**

1. Write the following as decimals:

(a)  $\frac{3}{10} =$  \_\_\_\_\_

(b)  $\frac{14}{10} =$  \_\_\_\_\_

(c)  $\frac{25}{125} =$  \_\_\_\_\_

(d)  $\frac{143}{100} =$  \_\_\_\_\_

(e)  $1\frac{3}{20} =$  \_\_\_\_\_

(f)  $2\frac{13}{1000} =$  \_\_\_\_\_

2. Write the following as decimals:

(a)  $2 + \frac{1}{3} =$  \_\_\_\_\_

(b)  $5 + \frac{2}{50} + \frac{2}{5} =$  \_\_\_\_\_

(c)  $3\frac{9}{20} + 1\frac{1}{10} =$  \_\_\_\_\_

(d)  $12 + \frac{3}{10} + \frac{9}{100} =$  \_\_\_\_\_

(e) seven-hundredths = \_\_\_\_\_

(f)  $\frac{12345}{1000} =$  \_\_\_\_\_

3. Work out the following:

(a)  $89.23 - 25.42 =$  \_\_\_\_\_

(b)  $7.812 - 6.243 =$  \_\_\_\_\_

(c)  $16.52 - 11.234 =$  \_\_\_\_\_

(d)  $15.831 - 2.34 =$  \_\_\_\_\_

(e)  $34.62 + 2.35 =$  \_\_\_\_\_

(f)  $100.2 + 2.203 =$  \_\_\_\_\_

(g)  $\$3,456.20 + \$1,234.90 =$  \_\_\_\_\_

(h)  $\$123.45 - \$105.98 =$  \_\_\_\_\_

(i)  $\$35.27 - \$12.75 =$  \_\_\_\_\_

(j)  $\$102.05 - \$12.95 =$  \_\_\_\_\_

#### 4.4 Topic 4 — Fractions

There are three types of fractions:

- Proper Fraction: a proper fraction is a fraction in which the numerator is less than the denominator. (e.g.  $\frac{1}{3}$ )
- Improper Fractions: An improper fraction is a fraction in which the numerator is equal to or greater than the denominator. (e.g.  $\frac{5}{4}$ )
- Mixed Number: A mixed number has a whole number part and a proper fraction part. (e.g.  $2\frac{1}{3}$ )

1. Change the following improper fraction to mixed numerals:

(a)  $\frac{17}{5} =$  \_\_\_\_\_

(b)  $\frac{23}{4} =$  \_\_\_\_\_

(c)  $\frac{18}{7} =$  \_\_\_\_\_

(d)  $\frac{41}{9} =$  \_\_\_\_\_

(e)  $\frac{97}{6} =$  \_\_\_\_\_

2. Change the following mixed numerals to improper fractions:

(a)  $2\frac{1}{5} =$  \_\_\_\_\_

(b)  $5\frac{3}{4} =$  \_\_\_\_\_

(c)  $3\frac{1}{17} =$  \_\_\_\_\_

(d)  $4\frac{2}{9} =$  \_\_\_\_\_

(e)  $6\frac{7}{12} =$  \_\_\_\_\_

3. Simplify the following fractions:(divide both the numerator and denominator by their H.C.F)

(a)  $\frac{32}{38} =$  \_\_\_\_\_

(b)  $\frac{38}{32} =$  \_\_\_\_\_

(c)  $\frac{15}{45} =$  \_\_\_\_\_

(d)  $\frac{45}{15} =$  \_\_\_\_\_

**4.5 Problem Solving (Number Problems)**

1. Short problems to set you thinking.

(a) Find the average of  $\frac{2}{12}$  and  $\frac{2}{3}$ . \_\_\_\_\_

(b) Find the square root of  $6\frac{1}{4}$ . \_\_\_\_\_

(c) Find the square root of  $5\frac{1}{16}$ . \_\_\_\_\_

(d) What is  $9 \times 10\frac{1}{3}$ ? \_\_\_\_\_

(e) What is the value of  $\frac{3}{4-\frac{2}{3}}$ ? \_\_\_\_\_

(f) Express 120% as an improper fraction in its simplest form. \_\_\_\_\_

(g) Find  $1 \div 2 \times 3 \div 4 \times 5 \div 6 \times 7 \div 8 =$

\_\_\_\_\_  
\_\_\_\_\_

2. If you multiply a fraction by 16 and add 6 you get 12. What is the fraction?

\_\_\_\_\_  
\_\_\_\_\_

3. Square  $3\frac{1}{2}$  and multiply the result by the cube root of 64, the answer is:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

4. Increase the quotient of 72 and 9 by the different between  $3^2$  and  $4^2$

\_\_\_\_\_  
\_\_\_\_\_

5. Mary paid \$216 for 4 blouses and 5 skirts. A skirt cost 4 times as much as a blouse. How much did she pay for each skirt?

\_\_\_\_\_  
\_\_\_\_\_

6. Ken has twice as much money as Charles. How much must Ken give Charles so that each of them will have \$54?

\_\_\_\_\_  
\_\_\_\_\_

## 4.6 Test Paper 4

### 4.6.1 Part A — Quick Questions

1.  $800 + 461 + 200 =$  \_\_\_\_\_
2. What is the angle between the hands of a clock at 3pm? \_\_\_\_\_
3. How many fives are there in 35? \_\_\_\_\_
4. How many days in September? \_\_\_\_\_
5. How many days in a leap year? \_\_\_\_\_
6. To the sum of 5 and 4, add their product. \_\_\_\_\_
7. Change  $\frac{9}{4}$  to a mixed numeral. \_\_\_\_\_
8. What is the remainder when 43 is divided by 5? \_\_\_\_\_
9.  $12^2 + 5 =$  \_\_\_\_\_
10.  $\frac{1}{4}$  of 3 dozen apples. \_\_\_\_\_
11. 0.75 of 1 km = \_\_\_\_\_ m .
12. How many tens are in 180? \_\_\_\_\_
13. How many years in 3 decades? \_\_\_\_\_
14. How many counting numbers between 1 and 10? \_\_\_\_\_
15. How many angles in a triangle? \_\_\_\_\_
16. How many quarters in  $1\frac{1}{2}$ ? \_\_\_\_\_
17. From 3 times 7, take away the half of 8. \_\_\_\_\_
18. Round off 157 to the nearest ten. \_\_\_\_\_
19. Express  $\frac{17}{100}$  as a percentage \_\_\_\_\_
20. Millilitres in 3 litres \_\_\_\_\_

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21. Minutes in  $\frac{3}{4}$  of an hour. \_\_\_\_\_
22. Is 13 a prime number? \_\_\_\_\_
23.  $8 + 10 - 3 = 3 \times 5$ . True or false? \_\_\_\_\_
24.  $80\,000 + 800 + 80 + 8 =$  \_\_\_\_\_
25. 7000 more than 77 000 = \_\_\_\_\_
26. Find the product of  $9 \times 12 =$  \_\_\_\_\_
27. How many 10c coins in \$137? \_\_\_\_\_
28. How many days are in January? \_\_\_\_\_
29. Days in a normal year. \_\_\_\_\_
30. Weeks in 3 years. \_\_\_\_\_
31. Years in 4 decades. \_\_\_\_\_
32. Perimeter of a square with side 8cm. \_\_\_\_\_
33. Write 20¢ in dollar notation. \_\_\_\_\_
34. Was 1993 a leap year? \_\_\_\_\_
35. How many edges has a cube? \_\_\_\_\_
36. How many quarters in 3? \_\_\_\_\_
37. Days in August, 1995. \_\_\_\_\_
38. Average of 5, 9, 6, 12. \_\_\_\_\_
39.  $6 \times 9 = 6 + 9$ . True or false? \_\_\_\_\_
40. How many metres are there in 800 cm? \_\_\_\_\_
41.  $4\frac{1}{3} - \frac{2}{3} =$  \_\_\_\_\_
42.  $2\frac{1}{5} \times 1\frac{2}{3} =$  \_\_\_\_\_



**4.6.2 Part B — Average Questions**

1. Mark had 288 marbles and lost 129. How many are left?

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2. Our basketball team scored 114 points. Philip scored 62 of these points. How many points were scored by the rest of the team?

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3. A farmer has 456 sheep. If he sells 231, how many has he now?

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4. Find the difference between the sum of 86 and 104 and the sum of 54 and 96.

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5. A school has 758 students. If at the end of the year 20 boys and 17 girls leave, how many students are left in the school?

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6. If a cyclist travels at 15 km/h, how far would he travel in 7 hours?

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7. The human heart beats about 72 times a minute. How many times does it beat in 3 hours?

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8. A student travels 25 km a day. How many kilometres does he travel in 10 school days?

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9. 70 boxes of oranges were sold at an average price of \$15 each. What was the total amount?

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10. 130 sheep were bought for an average price of \$15 per head. What was the total price paid?

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11. Half of  $99\frac{1}{2}$  =

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12. How many minutes are there between 11:41a.m to 2:02p.m. ?

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## 4.6.3 Part C — Extension Questions

1.  $\frac{1}{2} \times \frac{1}{77} + \frac{1}{77} \times \frac{1}{3} + \frac{1}{4} \times \frac{1}{77} + \frac{1}{77} \times \frac{1}{5} =$  \_\_\_\_\_

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2. Using  $\frac{1}{2 \times 3} = \frac{1}{2} - \frac{1}{3}$ ,  $\frac{1}{3 \times 4} = \frac{1}{3} - \frac{1}{4}$ , ... find  $\frac{1}{7 \times 8} + \frac{1}{8 \times 9} + \frac{1}{9 \times 10} + \frac{1}{10 \times 11}$

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3.  $1 + \frac{1}{2} + \frac{1}{6} + \frac{1}{12} + \frac{1}{20} =$  \_\_\_\_\_

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4.  $\frac{2}{3} = 2 \div 3$ ,  $\frac{1}{1+\frac{1}{2}} = 1 \div (1 + \frac{1}{2})$ . Find  $\frac{4}{1+\frac{1}{3}} =$  \_\_\_\_\_

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5. If  $\begin{vmatrix} 1 & \star & 2 \\ 3 & \star & 4 \end{vmatrix} = 1 \times 4 - 2 \times 3$ , then  $\begin{vmatrix} 5 & \star & 6 \\ 3 & \star & 7 \end{vmatrix} - \begin{vmatrix} 3 & \star & 4 \\ 2 & \star & 5 \end{vmatrix} =$  \_\_\_\_\_

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6. When  $\alpha$  is greater than  $\beta$ ,  $\langle \alpha, \beta \rangle = \alpha$ , and when  $\beta$  is greater than  $\alpha$ ,  $\langle \alpha, \beta \rangle = \beta$ .

Find the value of  $\langle \frac{1}{2}, \frac{2}{5} \rangle \times 4 + \langle 0.7, \frac{3}{4} \rangle$ .

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**4.6.4 Part D — Challenging Problems**

1. The average of 3 numbers is 81. If 7 is subtracted from each number, what is the new average?

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2. What is the least number, used as divisor, which leaves a remainder of 3 when 75 is divided and a remainder of 7 when 115 is divided?

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3. What is the fourth largest three-digit number possible using the digits 1, 3, 5 only.

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4. Adam paid \$210.50 for 7 books and 8 magazines. Each book cost \$3.50 more than each magazines.

- (a) How much did he pay for each book?

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- (b) How much did he pay in total for the magazines?

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5.  $\frac{1}{3}$  of a bag of marbles are black,  $\frac{5}{12}$  of the marbles are white and  $\frac{4}{5}$  of the remaining marbles are yellow. If there are 120 yellow marbles, how many marbles are there in the bag altogether?

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