Year 5 Term 1 Homework

Student Name: _____	**Grade**: _____
Date: _____	**Score**: _____

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This edition was printed on February 15, 2017.

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3 Year 5 Term 1 Week 3

3.1 Topic 1 — Place Value

Exercise 3.1.1

1. *Which of the following numbers when rounded off to the nearest thousand gives 560,000?*
   A. 558990 *B. 559495* *C. 559501* *D. 560962*

2. *Express 3.456 as a fraction in its simplest form.*
   A. $3\frac{114}{250}$ *B.* $3\frac{228}{500}$ *C.* $3\frac{456}{1000}$ *D.* $3\frac{57}{125}$

3. *Express 2.008 as a fraction in its lowest term.*
   A. $2\frac{8}{100}$ *B.* $2\frac{2}{50}$ *C.* $2\frac{1}{125}$ *D.* $2\frac{1}{800}$

4. *What is 898375 rounded off to the nearest 1000?*
   A. 890000 *B. 900000* *C. 898300* *D. 898000*

5. *The value of 8 in the hundred thousands place is _____ times the value of 8 in the hundreds place.*
   A. 10 *B. 100* *C. 1000* *D. 10,000*

6. *500 less than half a million is _____ .*
   A. 499,500 *B. 500,000* *C. 500,500* *D. 990,500*

7. *Subtract 515 from 200000 and add half a million to the result.*
   A. 699,485 *B. 699,085* *C. 499,085* *D. 199.485*

8. *500 thousands 50 tens and 15 ones written as a numeral is _____ .*
   A. 505,015 *B. 500,515* *C. 550,015* *D. 505,505*

9. *Round off 567490 to the nearest ten thousand.*
   A. 567,000 *B. 567,500* *C. 570,000* *D. 570,490*

10. $0.035 \times 100 = 35 \div$ _____ .
    A. 10 *B. 100* *C. 1000* *D. 10,000*

11. *Find the sum of 12059 and 296431 and round off your answer to the nearest ten thousand.*
    A. 300,000 *B. 301,000* *C. 310,000* *D. 309,000*

3.2 Topic 2 — Order of Operations

Exercise 3.2.1 Evaluate each of these expressions:

1. $\{[48 \div 12] + (35 \div 5)\} \times 6$

2. $\{[(12 + 6) \times 2] + [(8 \times 3) \div 2]\}$

3. $18 - 6 \times (2 + 1)$

4. $[(24 + 25) \div 7] \times 8$

5. $[9 + (9 \times 9)] \div 9$

6. $\{[(150 \div 15) - 7] - 2\}$

7. $[(10 \times 8) - 36] \div 11$

8. $5 \times [(4 + 7) \times (3 \times 6)]$

9. $32 \div 4 \times 2 + 28 \div 4 \times 2$

3.3 Topic 3 — Important Words in Maths

SUM means ADD.	The sum of 17 and 21 is 17 + 21 = 38
INCREASE means to ADD ON.	Increase 10 by 7 means 10 + 7 = 17
MORE THAN means to ADD ON	12 more than 28 means 28 + 12 = 40
DIFFERENCE means SUBTRACT.	The difference between 10 and 4 is 10-4=6
PRODUCT means MULTIPLY.	The product of 9 and 6 is $9 \times 6 = 54$
OF means MULTIPLY.	25% of \$200 = $\frac{25}{100} \times \$200 = \$50$
QUOTIENT means DIVIDE.	The quotient of 24 and 3 is 24 + 3 = 8
DECREASE means to SUBTRACT FROM.	Decrease 23 by 8 means 23 - 8 = 15 3+5=8
LESS THAN means to SUBTRACT FROM.	15 less than 51 = 51 - 15 = 36
= means EQUALS.	5 + 5 = 10
$\neq$ means NOT EQUAL TO.	$4 + 5 \neq 10$
> means LARGER THAN.	8 > 5
< means LESS THAN.	3 < 4
$\because$ means BECAUSE.	$\because \square = 3, \ \therefore \square \times 3 = 9$
$\therefore$ means THEREFORE	$\square + 5 = 8 \quad \therefore \square = 3$
SQUARED means POWER OF 2.	Four squared means $4^2 = 16$
CUBED means POWER OF 3.	Ten cubed means $10^3 = 1000$
AVERAGE means MIDDLE.	The average of 6 and 10 is 8
% means PERCENT	out of 100
( ) means parentheses	(23 + 12) = 35
[ ] means brackets	
{ } means braces	
π mean pi	Approximately 3.14 or $\frac{22}{7}$

Example 3.3.1 Find the average of 7, 5, 9, and 11.

$$\begin{aligned} \textit{Average of a set of scores} &= \frac{\textit{add up all the scores}}{\textit{total number of scores}} \\ &= \frac{7+5+9+11}{4} \\ &= 8 \end{aligned}$$

Exercise 3.3.1 Write a algebraic expression for each of these statements:

1. *The difference between a number and five is equal to 9. What is the number?* _____
2. *Eight is equal to the quotient of a number and 8. Find the number.* _____
3. *The difference of a number and seven is equal to 6. What is the number?* _____
4. *Ten is equal to the quotient of a number and 3. Find the number.* _____
5. *The difference of a number and five is equal to 8. What is the number?* _____
6. *Five is equal to the quotient of a number and 8. Find the number.* _____
7. *The difference of a number and five is equal to 7. What is the number?* _____
8. *Ten is equal to the quotient of a number and 7. Find the number.* _____
9. *Six is equal to the quotient of a number and 9 . Find the number.* _____
10. *The difference of a number and seven is equal to 5. What is the number?* _____
11. *Four is equal to the quotient of a number and 6. Find the number.* _____
12. *Ten times a number diminished by 2 is 38. Find the number.* _____
13. *Eight times a number increased by 2 is 34. Find the number.* _____
14. *Twice a number decreased by 2 is 16. Find the number.* _____
15. *Twice a number increased by 5 is 21. Find the number.* _____
16. *Nine times a number diminished by 82 is 17. Find the number.* _____
17. *Six times a number increased by 9 is 39. Find the number.* _____
18. *Ten times a number increased by 4 is 104. Find the number.* _____
19. *Three times a number decreased by 2 is 25. Find the number.* _____
20. *Twice a number increased by 9 is 29. Find the number.* _____
21. *Five times a number decreased by 11 is 4. Find the number.* _____
22. *Eight times a number increased by 7 is 95. Find the number.* _____

3.4 Topic 4 — Finding the Missing Numbers

Exercise 3.4.1

1. *The letters A, B, C and D stand for different numbers. What is the value of D in the multiplication?*

$$\begin{array}{cccccccc} & & A & B & C & A & B \\ \times & & & & & & 9 \\ \hline & D & D & D & D & D & D \end{array}$$

A. 6 *B. 3* *C. 9* *D. 4*

2. *The letters A, B, C and D represent 4 different numbers from 1 to 9. Find the value of B if* $A \times B = B,\ C \div D = D,\ ADC + CCD = AADB$

A. 3 *B. 9* *C. 2* *D. 1*

3. *Find the number at X so that when it is completed using numbers from 5 to 12 and the sum of each side is equal to 24.*

$$\begin{array}{ccccc} X & - & \square & - & \square \\ | & & & & | \\ 9 & & & & \square \\ | & & & & | \\ \square & - & \square & - & 6 \end{array}$$

A. 5 *B. 10* *C. 7* *D. 8*

4. *The total bus fare for 3 adults and 2 children is $15. If the children's fare was $1.65 each, how much is each adult fare?*

A. $3.95 *B. $2.90* *C. $3.90* *D. $3.65*

5. *A fraction is added to 0.25, the sum is divided by* $\frac{3}{4}$ *and the answer is 2. What is the fraction?*

A. $1\frac{3}{4}$ *B.* $2\frac{5}{12}$ *C.* $1\frac{2}{3}$ *D.* $1\frac{1}{4}$

6. *When 8 is multiplied by a certain fraction, the answer is 0.5 greater than* $\frac{1}{3}$*. What is the fraction?*

A. $\frac{5}{48}$ *B.* $6\frac{2}{3}$ *C.* $\frac{1}{48}$ *D.* $1\frac{1}{3}$

3.5 Problem Solving (Working Backwards)

In some questions, you will not be given the original amount. Instead you will be given a series of steps or operations which takes you from the original amount to the final answer. The question will then ask you to find the original amount. The easiest way of solving these questions is to work backwards from the final answer.

- Remember to do the opposite operation when working backwards.
- The opposite operation to adding is subtracting, and vice versa.
- The opposite operation to multiplying is dividing, and vice versa.

Example 3.5.1 Find the missing number in the box. $(\square - 8) \div 3 = 9$

Solution *Final answer is 9.* *Work backwards!*

$9 \times 3 = 27$ *Multiply by 3*

27 + 8 = 35 *Add 8*

The missing number is 35.

Example 3.5.2 If I think of a number. Multiply it by 5. Then add 6. I am left with 41. What is the number I first thought of?

Solution: *Final number is 41.* *Work backwards!*

$41 - 6 = 35$ *Subtract 6*

$35 \div 5 = 7$ *Divide by 5*

The original number is 7.

Exercise 3.5.1 Find the missing numbers.

1. $6.304 = 6 + 0.3 + 4 \times \square$
   A. 0.0001 *B. 0.01* *C. 0.1* *D. 0.001*

2. $34.125 = 34 + \frac{1}{\square}$
   A. 125 *B. 16* *C. 4* *D. 8*

3. $216 = \square^3$
   A. 8 *B. 6* *C. 72* *D. 7*

4. $\frac{3}{4} = \frac{\square}{600}$
   A. 599 *B. 45* *C. 450* *D. 150*

5. $4.587 + \square = 7.017$
   A. 2.604 *B. 3.53* *C. 2.53* *D. 2.43*

6. $\square \div 19 = 21$
   A. 399 *B. 378* *C. 389* *D. 380*

7. $\square - \frac{9}{15} = 1\frac{7}{12}$
   A. $2\frac{11}{60}$ *B.* $1\frac{59}{60}$ *C.* $\frac{59}{60}$ *D.* $1\frac{11}{60}$

8. $720 - (\square + 80) = 250$
   A. 380 *B. 390* *C. 550* *D. 400*

9. $(\square + 9) \div 17 = 5$
   A. 94 *B. 86* *C. 76* *D. 96*

10. $\square \div 30 = 3.3\ r\ 0.1$
    A. 100 *B. 102* *C. 99.1* *D. 990.1*

11. $17^2 - 15^2 = \square^2$
    A. 32 *B. 8* *C. 2* *D. 64*

12. $157 \times 6 = 75 \times 6 + \square \times 6$
    A. 82 *B. 81* *C. 83* *D. 80*

13. $3.14 \times 6.28 + 3.14 \times 3.72 = \square \times 10$

A. 2.56 *B. 31.4* *C. 25.6* *D. 3.14*

14. $\square \times \square = 324$

A. 18 *B. 162* *C. 81* *D. 19*

15. $9 \times \square - \square \times 5 = 32$

A. 7 *B. 9* *C. 8* *D. 6*

16. $200 - (20 + \square) \times \square = 44$

A. 5 *B. 4* *C. 6* *D. 8*

17. $41.08 \div (3.6 + \square) = 7.9$

A. 48.4 *B. 8.8* *C. 1.6* *D. 2.6*

18. $(\square - 10.6) \times 0.31 = 2.914$

A. 12 *B. 950.6* *C. 20* *D. 104.6*

19. $(\square - \frac{3}{4}) \div \frac{5}{12} = \frac{3}{10}$

A. $\frac{7}{20}$ *B.* $\frac{37}{40}$ *C.* $\frac{3}{100}$ *D.* $\frac{7}{8}$

20. $2\frac{2}{5} - \frac{3}{4} \times \square = \frac{13}{20}$

A. $2\frac{1}{3}$ *B.* $\frac{13}{33}$ *C.* $1\frac{5}{16}$ *D.* $2\frac{7}{20}$

21. If $\frac{3}{5}$ *of a number is 78, what is the number?*

A. 13 *B. 46.8* *C. 468* *D. 130*

22. If $(A \diamondsuit B) = A + B + 1$ *,* $(\square \diamondsuit 4) = 7$*. Find the missing number.*

A. 4 *B. 2* *C. 3* *D. 5*

23. If $< M \heartsuit N >= M \times N - N, < \square \heartsuit 2 >=< 5 \heartsuit 3 >$ *. Find the missing number.*

A. 7 *B. 6* *C. 5* *D. 8*

24. I think of a number, square it, halve it. triple it. and I am left with 96. What is the number I first thought of?

A. 16 *B. 4* *C. 32* *D. 8*

3.6 Test Paper 3

3.6.1 Part A — Quick Questions

1. What is the difference between 8765 and 678 in the value of the 8's? _____
2. How many days altogether in June, July and August? _____
3. Find $\frac{4}{5}$ of 80 _____
4. How many hours from 8am to 7pm? _____
5. What is the value of 6 in 863,517 _____
6. Find 75% of $\$80.80$ _____
7. Find 4^3 - 10 = _____
8. 0.5 + 1.35 = _____
9. Halve 16 and square the result _____
10. Metres in 5.8 km? _____
11. Find 15% of \$900 _____
12. Change from \$10 after spending \$3.77? _____
13. 0.25×5 = _____
14. Write 68,745 to the nearest hundred. _____
15. How many cm in $\frac{3}{4}$ of a metre? _____
16. Write $\frac{48}{80}$ in its simplest form. _____
17. 8.5×100 _____
18. Cost of 300 books at \$11 each _____
19. Find 15^2 = _____
20. $4^3 + 7$ = _____

21. Write 459 to the nearest 100 _____

22. Write 23% as a fraction _____

23. Reduce $\frac{16}{20}$ to the lowest terms _____

24. Find 25% of 24 _____

25. $4 \times 5 > 4 + 5$. True or False _____

26. What year is 25 years after 1995? _____

27. Find the average of the numbers 40, 60, 80, 100 _____

28. Add even numbers less than 9 _____

29. How many faces has a cube? _____

30. Write in figures the number one less than one million. _____

31. 23 less than 200 = _____

32. Roman numeral for 44 _____

33. $86 - 6 - 6 - 6 =$ _____

34. $\frac{1}{3} - \frac{1}{27} =$ _____

35. How many sides has a square? _____

36. Add 3, 5, 7, 9, 11, 13 = _____

37. Find the next number 4, 9, 14, 19, 24, 29 . . . _____

38. Write $1\frac{3}{10}$ as a decimal. _____

39. $5^2 + 7^2$ = _____

40. Write our numeral for CXLIX _____

41. How many surfaces does a rectangular prism have? _____

42. Write 1607 into Roman numerals. _____

3.6.2 Part B — Average Questions

1. When a certain number is multiplied by 4 and 3 is added, the result is 39. What is the number?

2. When a certain number is added on to itself, the result is 24. What is the number?

3. When a certain number is divided by 5 the result is 9. What is the number?

4. A person has three times as many two-dollar coins in his pocket as one-dollar coins. The total value of these coins is $49. How many coins of each kind has he?

5. The sum of two consecutive numbers is 43. What is the larger number?

6. The smaller of the two numbers is 12 and the difference is 40. Find the larger number.

7. The smaller of the two numbers is 9 and their sum is 30. What is the difference between the two numbers?

8. Add the sum of 72 and 18 to their difference. What is the number?

9. One sixth of my 72 marbles were lost. How many have I now?

10. Seven years ago John was 7 years old. How old will he be in 20 years time?

3.6.3 Part C — Extension Questions

1. A remote-control car uses 3 batteries every 6 hours. The batteries are sold in packs of 4. How many packs of batteries would be needed to run the car for 48 hours?

2. Use a quick method to find the following:

   (a) $43 \times 87 - 37 \times 43 =$

   (b) $66 \div 12 + 114 \div 12 =$

   (c) $30 - 29 + 28 - 27 + ... - 3 + 2 - 1 =$

   (d) $\frac{1}{2} + \frac{1}{3} + \frac{1}{4} + \frac{1}{5} + \frac{2}{3} + \frac{2}{4} + \frac{2}{5} + \frac{3}{4} + \frac{3}{5} + \frac{4}{5} =$

3. Find what the symbols represent to work out the following:

   (a) If X $\diamondsuit$ Y = $(X \div 2 + 4 \times Y) \div 3$, $\quad 8 \diamondsuit 5 =$

   (b) If P ♠ $Q = P \times P + 2 \times Q$, $\quad 3$ ♠ $\frac{1}{3} =$

   (c) If V ♣ W = $V \times 2 + W \div 3$, then (2 ♣ 3) ♣ (4 ♣ 5) =

   (d) If ♡ ♣ $\diamondsuit$ = ♡ × 3 + $\diamondsuit$, then 7 ♣ [(1 ♣ 1) ♣ 2] =

3.6.4 Part D — Challenging Problems

1. Carlo and Eve have 495 stamps altogether. If Carlo has 25% more stamps than Eve, find the number of stamps Carlo has.

2. 96 sweets are shared among 4 children in the ratio 1 : 3 : 5 : 7. Find the difference of the number of sweets between the greatest and the smallest shares.

3. Jessica has $\frac{2}{7}$ bookmarks as Kelly. If Jessica has 36 bookmarks, how many bookmarks does Kelly have?

4. A rectangular water tank measures 24 cm by 28 cm by 12 cm. It is filled with 5 L of water. How much water will overflow if another 5 L of water is poured into the tank?