

Mathematics

STANDARD 4

NUMBER: ALGEBRAIC
THINKING and WHOLE
NUMBER OPERATIONS

TEACHING POINTS

- Missing number in number sentences
- Algebraic Thinking
- Solve Problems involving the four operations

EXERCISE 1

Fill in a number in each box which would make the statement true.

$$1. \quad 6 \times 9 = (6 \times 5) + (6 \times \boxed{})$$

$$2. \quad 12 \times 3 = 3 \times \boxed{}$$

$$3. \quad 3 \times (7 - 2) = (3 \times \boxed{}) - 6$$

$$4. \quad 5 \times (6 + 3) = 30 + (5 \times \boxed{})$$

$$5. \quad 500 - \boxed{} = 700 - 400$$

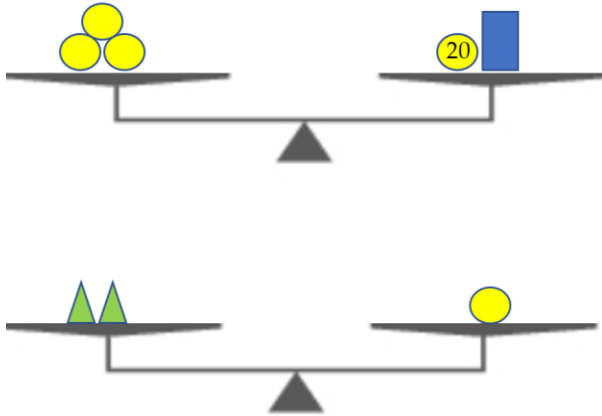
$$6. \quad \boxed{} - 600 = 200 + 100$$


$$7. \quad 900 - 300 = \boxed{} - 400$$



$$8. \quad 8\,000 - \boxed{} = 7\,000 - 1\,000$$


EXERCISE 2




1. Use the information below to answer the questions that follow.





(a) What is the value of  ?

(b) How many  s are equal to one  ?

(c) What is the number value of  ?

2. If  +  +  = 105

And  +  = 65

Then  +  = ?

3. If $\heartsuit + \heartsuit + \blacktriangle = 100$

And $\heartsuit + \blacktriangle = 75$

Then $\blacktriangle + \blacktriangle + \blacktriangle = ?$

4. If $\bullet + \star + \star = 200$

And $\star + \bullet = 115$

Then what is $\bullet + \bullet + \bullet = ?$

EXERCISE 3

In each of the following questions, information is given, and you are required to use mental strategies to evaluate the required answer.

	GIVEN INFORMATION	WRITE THE VALUE OF
1.	$21 + 36 = 57$	$210 + 360 = \underline{\hspace{2cm}}$
2.	$25 \times 4 = 100$	$25 \times 16 = \underline{\hspace{2cm}}$
3.	$243 \div 3 = 81$	$243 \div 9 = \underline{\hspace{2cm}}$
4.	$264 \div 2 = 132$	$264 \div 4 = \underline{\hspace{2cm}}$
5.	$960 \div 12 = 80$	$960 \div 6 = \underline{\hspace{2cm}}$
6.	$26 \times 7 = 182$	$13 \times 7 = \underline{\hspace{2cm}}$
7.	$345 \times 6 = 2\ 070$	$115 \times 18 = \underline{\hspace{2cm}}$
8.	$256 \times 4 = 1\ 024$	$512 \times 2 = \underline{\hspace{2cm}}$
9.	$295 + 55 = 350$	$295 + 45 = \underline{\hspace{2cm}}$
10.	$369 - 125 = 244$	$370 - 125 = \underline{\hspace{2cm}}$

EXERCISE 4

<p>1. Atiba had 245 marks in his weekly test and Mike had 269 in the same test. How many marks do they have altogether</p>	<p>2. In a set of Lego blocks, there are 172 red blocks and 34 more yellow blocks than red. How many red and yellow blocks are there altogether?</p>
<p>3. Gary had 425 stickers. He gave his brother 140 of them. How many stickers did he have remaining?</p>	<p>4. Richard collected 154 plums from his garden on Monday and 42 less on Tuesday. How many plums did he collect over the two days?</p>
<p>5. Leanne had 24 markers. Ryan had twice as many as Leanne. How many markers did they have altogether?</p>	<p>6. When Javed gave each of his two friends 30 marbles, he had 45 remaining. How many marbles did he have at the start?</p>
<p>7. Three children each had some money. The least amount they had was \$4.25 and the most they had was \$7.60. If they had \$16.85 altogether, how much money did the third child have?</p>	<p>8. Mia had 26 crayons. Ian had 45 more than Mia and 20 less than Shanna. How many crayons did they have altogether?</p>

EXERCISE 5 SEA QUESTIONS

1. Write the missing numeral to make the number statement correct.

$$(14 \times 10) + (14 \times 7) = 14 \times \square$$

SEA 2019 1 mark

2. $\sqrt{64} + 7 = 12 + \square$

SEA 2017 1 mark

3. Write the number in the box that CORRECTLY completes the following sentence.

$$\frac{1}{12} \times \square = 20$$

SEA 2015 1 mark

4. Eighteen identical tables fit exactly along the length of a hall. Each table measures 2.5 m in length.

What is the **total** length of the hall?

SEA 2019 2 marks

5. A cinema has 7 rows. Each row has 20 seats. All of the seats in 6 rows were completely occupied while 5 seats in the 7th row were **not** occupied.

How many seats were occupied altogether?

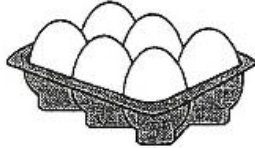
SEA 2018 2 marks

6. Pictures are numbered in sequence from 1 to 152. Zack is sticking 8 pictures in order on a bristol board to form posters.

How many posters can Zack make?

SEA 2017 1 mark

7. A baker uses 6 eggs to make a cake.



How many eggs will he use to make 9 similar cakes?

SEA 2016 1 mark

8. Maria has 413 stamps. Her brother has 49 stamps fewer than she has. How many stamps do they have ALTOGETHER?

SEA 2015 2 marks

ANSWERS

EXERCISE 1 ANSWERS

$$1. \quad 6 \times 9 = (6 \times 5) + (6 \times \boxed{4})$$

$$2. \quad 12 \times 3 = 3 \times \boxed{12}$$

$$3. \quad 3 \times (7 - 2) = (3 \times \boxed{7}) - 6$$

$$4. \quad 5 \times (6 + 3) = 30 + (5 \times \boxed{3})$$

$$5. \quad 500 - \boxed{200} = 700 - 400$$

$$6. \quad \boxed{900} - 600 = 200 + 100$$

$$7. \quad 900 - 300 = \boxed{1\,000} - 400$$

$$8. \quad 8\,000 - \boxed{2\,000} = 7\,000 - 1\,000$$

EXERCISE 2

1. (a) 10 (b) 4 (c) 40
2. 50
3. 150
4. 90

EXERCISE 3 ANSWERS

	GIVEN INFORMATION	WRITE THE VALUE OF
1.	$21 + 36 = 57$	$210 + 360 = \underline{570}$
2.	$25 \times 4 = 100$	$25 \times 16 = \underline{400}$
3.	$243 \div 3 = 81$	$243 \div 9 = \underline{27}$
4.	$264 \div 2 = 132$	$264 \div 4 = \underline{66}$
5.	$960 \div 12 = 80$	$960 \div 6 = \underline{160}$
6.	$26 \times 7 = 182$	$13 \times 7 = \underline{91}$
7.	$345 \times 6 = 2\,070$	$115 \times 18 = \underline{2\,070}$
8.	$256 \times 4 = 1\,024$	$512 \times 2 = \underline{1\,024}$
9.	$295 + 55 = 350$	$295 + 45 = \underline{340}$
10.	$369 - 125 = 244$	$370 - 125 = \underline{245}$

EXERCISE 4 ANSWERS

<p>1. <u>Atiba</u> had 245 marks in his weekly test and Mike had 269 in the same test. How many marks do they have altogether</p> <p style="text-align: center;">Answer 514</p>	<p>2. In a set of Lego blocks, there are 172 red blocks and 34 more yellow blocks. How many red and yellow blocks are there altogether?</p> <p style="text-align: center;">Answer 378</p>
<p>3. Gary had 425 stickers. He gave his brother 140 of them. How many stickers did he have remaining?</p> <p style="text-align: center;">Answer 285</p>	<p>4. Richard collected 154 plums from his garden on Monday and 42 less on Tuesday. How many plums did he collect over the two days?</p> <p style="text-align: center;">Answer 266</p>
<p>5. Leanne had 24 markers. Ryan had twice as many as Leanne. How many markers did they have altogether?</p> <p style="text-align: center;">Answer 72</p>	<p>6. When <u>Javed</u> gave each of his two friends 30 marbles, he had <u>45</u> remaining. How many marbles did he have at the start?</p> <p style="text-align: center;">Answer 105</p>
<p>7. Three children each had some money. The least amount they had was \$4.25 and the most they had was \$7.60. If they had \$16.85 altogether, how much money did the third child have?</p> <p style="text-align: center;">Answer \$5.00</p>	<p>8. Mia had 26 crayons. Ian had 45 more than Mia and 20 less than Shanna. How many crayons did they have altogether?</p> <p style="text-align: center;">Answer 188</p>

EXERCISE 5 ANSWERS

1. 17
2. 3
3. 240
4. 45m
5. 135
6. 19
7. 54
8. 777