

# Expressions and Equations

Unit Test, Form A (page 1 of 2)

Score \_\_\_\_\_ / 14

1. Find the value of each expression.

$$(7 + 5) \times 9 = \underline{\hspace{2cm}}$$

$$7 + (5 \times 9) = \underline{\hspace{2cm}}$$

2. Find the value. Show your work.

$$6 \times (14 - 5)$$

$$\underline{\hspace{4cm}} = \underline{\hspace{2cm}}$$

3. Number the operations 1, 2, 3 in order. Then find the value.

○   ○   ○  
|   |   |

$$45 - 7 \times 5 + 8 = \underline{\hspace{2cm}}$$

4. Find the value of each expression.

$$90 \div 6 \times 3 = \underline{\hspace{2cm}}$$

$$52 - 18 + 9 = \underline{\hspace{2cm}}$$

5. Find the value. Show your work.

$$6 \times [25 - (2 + 8)]$$

$$\underline{\hspace{4cm}} = \underline{\hspace{2cm}}$$

6. Find the value. Show your work.

$$\{[(15 - 6) \times 4] + 9\} \div 5$$

$$\underline{\hspace{4cm}} = \underline{\hspace{2cm}}$$

7. Write an expression for the words.  
Do not find its value.

Add 27 and 13, then divide by 5.

\_\_\_\_\_

8. Fill in the blank. Do not find the values.

$$12 \times (1,497 + 2,306)$$

is \_\_\_\_\_ times as large as

$$3 \times (1,497 + 2,306)$$

# Expressions and Equations

Unit Test, Form A (page 2 of 2)

9. Is each equation true when  $n = 6$ ?  
Circle True or False.

$(n + 9) \times 3 = 45$     True    False

$(30 - n) \div 4 = 7$     True    False

10. Add one pair of parentheses to make the equation true.

$4 \times 6 + 3 - 5 = 31$

11. Write the missing number to make each equation true.

$36 \times 17 = 17 \times \underline{\hspace{2cm}}$

$(28 + 15) + 5 = 28 + (\underline{\hspace{2cm}} + 5)$

$6 \times 74 = 6 \times 70 + 6 \times \underline{\hspace{2cm}}$

12. Write an expression for the words.  
Then find its value when  $n = 9$ .

4 times the sum of a number  $n$  and 6

Expression \_\_\_\_\_

Value \_\_\_\_\_

13. Write an equation with a letter for the unknown. Solve.

A baker packs **117** rolls into bags of **9** rolls each. How many bags does she fill?

Equation \_\_\_\_\_

\_\_\_\_\_ bags

14. Write an equation with a letter for the unknown. Solve.

A club buys **12** boxes of **36** markers and **48** more markers. It shares all the markers equally among **8** tables. How many markers does each table get?

Equation \_\_\_\_\_

\_\_\_\_\_ markers

# Expressions and Equations

Unit Test, Form B (page 1 of 2)

Score \_\_\_\_\_ / 14

1. Find the value of each expression.

$$(6 + 4) \times 8 = \underline{\hspace{2cm}}$$

$$6 + (4 \times 8) = \underline{\hspace{2cm}}$$

2. Find the value. Show your work.

$$(32 - 7) \times 3$$

$$\underline{\hspace{4cm}} = \underline{\hspace{2cm}}$$

3. Number the operations 1, 2, 3 in order. Then find the value.

○   ○   ○  
|   |   |

$$60 - 3 \times 8 + 7 = \underline{\hspace{2cm}}$$

4. Find the value of each expression.

$$84 \div 7 \times 2 = \underline{\hspace{2cm}}$$

$$63 - 25 + 4 = \underline{\hspace{2cm}}$$

5. Find the value. Show your work.

$$7 \times [30 - (5 + 9)]$$

$$\underline{\hspace{4cm}} = \underline{\hspace{2cm}}$$

6. Find the value. Show your work.

$$\{[(23 - 7) \div 2] + 6\} \times 3$$

$$\underline{\hspace{4cm}} = \underline{\hspace{2cm}}$$

7. Write an expression for the words.  
Do not find its value.

Add 38 and 22, then divide by 6.

\_\_\_\_\_

8. Fill in the blank. Do not find the values.

$$10 \times (3,265 + 478)$$

is \_\_\_\_\_ times as large as

$$2 \times (3,265 + 478)$$

# Expressions and Equations

Unit Test, Form B (page 2 of 2)

9. Is each equation true when  $n = 8$ ?  
Circle True or False.

$(n + 4) \times 7 = 90$     True    False

$(42 - n) \div 2 = 17$     True    False

10. Add one pair of parentheses to make the equation true.

$7 \times 5 - 2 + 4 = 25$

11. Write the missing number to make each equation true.

$45 \times 19 = 19 \times \underline{\hspace{2cm}}$

$(24 + 39) + 1 = 24 + (\underline{\hspace{2cm}} + 1)$

$9 \times 37 = 9 \times 30 + 9 \times \underline{\hspace{2cm}}$

12. Write an expression for the words.  
Then find its value when  $n = 7$ .

3 times the sum of a number  $n$  and 8

Expression \_\_\_\_\_

Value \_\_\_\_\_

13. Write an equation with a letter for the unknown. Solve.

A farmer packs **128** eggs into cartons of **8** eggs each. How many cartons does he fill?

Equation \_\_\_\_\_

\_\_\_\_\_ cartons

14. Write an equation with a letter for the unknown. Solve.

A farm picks **15** crates of **28** apples and **30** more apples. It packs all the apples equally into **6** boxes. How many apples go in each box?

Equation \_\_\_\_\_

\_\_\_\_\_ apples

# Expressions and Equations

Unit Test, Form A (page 1 of 2)

Score \_\_\_\_\_ / 14

1. Find the value of each expression.

$$(7 + 5) \times 9 = \underline{108}$$

$$7 + (5 \times 9) = \underline{52}$$

Lesson 5.1 · Parentheses first

2. Find the value. Show your work.

$$6 \times (14 - 5)$$

$$= 6 \times 9$$

$$= \underline{54}$$

Lesson 5.1 · Parentheses first

3. Number the operations 1, 2, 3 in order. Then find the value.

$$\begin{array}{c} \textcircled{2} \quad \textcircled{1} \quad \textcircled{3} \\ | \quad | \quad | \\ 45 - 7 \times 5 + 8 = \underline{18} \end{array}$$

Lesson 5.2 · The order of operations

4. Find the value of each expression.

$$90 \div 6 \times 3 = \underline{45}$$

$$52 - 18 + 9 = \underline{43}$$

Lesson 5.2 · The order of operations

5. Find the value. Show your work.

$$6 \times [25 - (2 + 8)]$$

$$= 6 \times [25 - 10]$$

$$= 6 \times 15$$

$$= \underline{90}$$

Lesson 5.3 · Brackets and braces

6. Find the value. Show your work.

$$\{[(15 - 6) \times 4] + 9\} \div 5$$

$$= \{[9 \times 4] + 9\} \div 5$$

$$= \{36 + 9\} \div 5$$

$$= 45 \div 5$$

$$= \underline{9}$$

Lesson 5.3 · Brackets and braces

7. Write an expression for the words.  
Do not find its value.

Add 27 and 13, then divide by 5.

$$\underline{(27 + 13) \div 5} \quad \text{One way}$$

Lesson 5.4 · Write and compare expressions

8. Fill in the blank. Do not find the values.

$$12 \times (1,497 + 2,306)$$

is 4 times as large as

$$3 \times (1,497 + 2,306)$$

Lesson 5.4 · Write and compare expressions

# Expressions and Equations

Unit Test, Form A (page 2 of 2)

9. Is each equation true when  $n = 6$ ?  
Circle True or False.

$$(n + 9) \times 3 = 45 \quad \text{True} \quad \text{False}$$

$$(30 - n) \div 4 = 7 \quad \text{True} \quad \text{False}$$

Lesson 5.5 · True or false; place parentheses

10. Add one pair of parentheses to make the equation true.

$$4 \times (6 + 3) - 5 = 31$$

Lesson 5.5 · True or false; place parentheses

11. Write the missing number to make each equation true.

$$36 \times 17 = 17 \times \underline{36}$$

$$(28 + 15) + 5 = 28 + (\underline{15} + 5)$$

$$6 \times 74 = 6 \times 70 + 6 \times \underline{4}$$

Lesson 5.6 · Equivalent expressions

12. Write an expression for the words.  
Then find its value when  $n = 9$ .

4 times the sum of a number  $n$  and 6

Expression  $\underline{4 \times (n + 6)}$  One way

Value  $\underline{60}$

Lesson 5.7 · Variables

13. Write an equation with a letter for the unknown. Solve.

A baker packs 117 rolls into bags of 9 rolls each. How many bags does she fill?

Equation  $\underline{9 \times b = 117}$

One way

$$\underline{117 \div 9 = 13}$$

One way

$\underline{13}$  bags

Lesson 5.7 · Variables

14. Write an equation with a letter for the unknown. Solve.

A club buys 12 boxes of 36 markers and 48 more markers. It shares all the markers equally among 8 tables. How many markers does each table get?

Equation  $\underline{(12 \times 36 + 48) \div 8 = m}$

One way

$$\underline{12 \times 36 = 432}$$

$$\underline{432 + 48 = 480}$$

$$\underline{480 \div 8 = 60}$$

One way

$\underline{60}$  markers

Lesson 5.8 · Multi-step stories with a letter

# Expressions and Equations

Unit Test, Form B (page 1 of 2)

Score \_\_\_\_\_ / 14

1. Find the value of each expression.

$$(6 + 4) \times 8 = \underline{80}$$

$$6 + (4 \times 8) = \underline{38}$$

Lesson 5.1 · Parentheses first

2. Find the value. Show your work.

$$(32 - 7) \times 3$$

$$= 25 \times 3$$

$$= \underline{75}$$

Lesson 5.1 · Parentheses first

3. Number the operations 1, 2, 3 in order. Then find the value.

$$\begin{array}{c} \textcircled{2} \quad \textcircled{1} \quad \textcircled{3} \\ | \quad | \quad | \\ 60 - 3 \times 8 + 7 = \underline{43} \end{array}$$

Lesson 5.2 · The order of operations

4. Find the value of each expression.

$$84 \div 7 \times 2 = \underline{24}$$

$$63 - 25 + 4 = \underline{42}$$

Lesson 5.2 · The order of operations

5. Find the value. Show your work.

$$7 \times [30 - (5 + 9)]$$

$$= 7 \times [30 - 14]$$

$$= 7 \times 16$$

$$= \underline{112}$$

Lesson 5.3 · Brackets and braces

6. Find the value. Show your work.

$$\{[(23 - 7) \div 2] + 6\} \times 3$$

$$= \{[16 \div 2] + 6\} \times 3$$

$$= \{8 + 6\} \times 3$$

$$= 14 \times 3$$

$$= \underline{42}$$

Lesson 5.3 · Brackets and braces

7. Write an expression for the words.  
Do not find its value.

Add 38 and 22, then divide by 6.

$$\underline{(38 + 22) \div 6} \quad \text{One way}$$

Lesson 5.4 · Write and compare expressions

8. Fill in the blank. Do not find the values.

$$10 \times (3,265 + 478)$$

is 5 times as large as

$$2 \times (3,265 + 478)$$

Lesson 5.4 · Write and compare expressions

# Expressions and Equations

Unit Test, Form B (page 2 of 2)

9. Is each equation true when  $n = 8$ ?  
Circle True or False.

$(n + 4) \times 7 = 90$     True    **False**

$(42 - n) \div 2 = 17$     **True**    False

Lesson 5.5 · True or false; place parentheses

10. Add one pair of parentheses to make the equation true.

$7 \times (5 - 2) + 4 = 25$

Lesson 5.5 · True or false; place parentheses

11. Write the missing number to make each equation true.

$45 \times 19 = 19 \times \underline{45}$

$(24 + 39) + 1 = 24 + (\underline{39} + 1)$

$9 \times 37 = 9 \times 30 + 9 \times \underline{7}$

Lesson 5.6 · Equivalent expressions

12. Write an expression for the words.  
Then find its value when  $n = 7$ .

3 times the sum of a number  $n$  and 8

Expression  $3 \times (n + 8)$     One way

Value 45

Lesson 5.7 · Variables

13. Write an equation with a letter for the unknown. Solve.

A farmer packs **128** eggs into cartons of **8** eggs each. How many cartons does he fill?

Equation  $8 \times c = 128$   
One way

$128 \div 8 = 16$

One way

16 cartons

Lesson 5.7 · Variables

14. Write an equation with a letter for the unknown. Solve.

A farm picks **15** crates of **28** apples and **30** more apples. It packs all the apples equally into **6** boxes. How many apples go in each box?

Equation  $(15 \times 28 + 30) \div 6 = n$   
One way

$15 \times 28 = 420$

$420 + 30 = 450$

$450 \div 6 = 75$

One way

75 apples

Lesson 5.8 · Multi-step stories with a letter