



Grade 6 Algebra Unit Test

Name _____ Date _____ Score _____ / 16

Part A • Simplifying Expressions

01 $7x + 9x + 6 + 11 =$

02 $2x + 9x + 12 - 4 =$

03 $8(3x - 7) =$ _____

04 $2(8x + 4) =$ _____

Part B • Inequalities

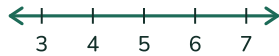
Solve, then graph the solution on the number line.



05 $6x + 4 \leq 34$ _____



06 $2x + 3 \geq 13$ _____



07 $7x + 5 < 26$ _____



08 $8x + 2 > 74$ _____



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Part C · Order of Operations

09 $2 \times 10 \times 4 =$ _____

10 $7 \times 4 + 9 =$ _____

11 $7 + 2 \times 5 =$ _____

12 $8 + 5 \times 4 =$ _____

Part D · Word Problems

13 A rectangular schoolyard is 40 m long and 30 m wide. What is its perimeter?

Answer: _____

14 Joaquin walked $\frac{1}{3}$ km to the library, then $\frac{4}{5}$ km to the park. How far did Joaquin walk in all?

Answer: _____

15 A 6-pack of juice boxes costs \$6.60. A 12-pack costs \$9.60. Which is the better buy?

Answer: _____



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Part D · Word Problems (continued)

16 There are 9 boxes with 2 hockey cards in each. How many hockey cards are there altogether?

Answer: _____



Grade 6 Algebra Unit Test (Answer Key)

Part A · Simplifying Expressions

01 $7x + 9x + 6 + 11 =$
 $16x + 17$

02 $2x + 9x + 12 - 4 =$
 $11x + 8$

03 $8(3x - 7) =$
 $24x - 56$

04 $2(8x + 4) =$
 $16x + 8$

Part B · Inequalities

Solve, then graph the solution on the number line.



05 $6x + 4 \leq 34$

$x \leq 5$



06 $2x + 3 \geq 13$

$x \geq 5$



07 $7x + 5 < 26$

$x < 3$



08 $8x + 2 > 74$

$x > 9$

Part C · Order of Operations

09 $2 \times 10 \times 4 =$ **80**

10 $7 \times 4 + 9 =$ **37**



Grade 6 Algebra Unit Test (Answer Key)

Part C • Order of Operations (continued)

11 $7 + 2 \times 5 = 17$

12 $8 + 5 \times 4 = 28$

Part D • Word Problems

13 A rectangular schoolyard is 40 m long and 30 m wide. What is its perimeter?

140 m

14 Joaquin walked $\frac{1}{3}$ km to the library, then $\frac{4}{5}$ km to the park. How far did Joaquin walk in all?

$1 \frac{2}{15}$ km

15 A 6-pack of juice boxes costs \$6.60. A 12-pack costs \$9.60. Which is the better buy?

the 12-pack (\$0.80 each)

16 There are 9 boxes with 2 hockey cards in each. How many hockey cards are there altogether?

18 hockey cards