



Grade 7 Algebra Unit Test

Name _____ Date _____ Score _____ / 16

Part A · Simplifying Expressions

01 $6(1x + 11) =$ _____

02 $3(5x - 8) =$ _____

03 $4(5x + 1) =$ _____

04 $9(1x + 8) =$ _____

Part B · Linear Equations

05 $3x + 1 = 25$ _____

06 $12x - 2 = 34$ _____

07 $3x - 1 = -19$ _____

08 $8x - 9 = -97$ _____



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Part C · Inequalities

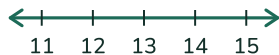
Solve, then graph the solution on the number line.



09 $8x + 8 < 80$



10 $7x + 3 \leq 101$



11 $9x + 1 < 100$



12 $5x + 3 < 68$

Part D · Word Problems

13 A soccer league had 380 players last season. This season it has 5% more. How many players does it have this season?

Answer: _____

14 Anika cycled 64 km in 4 hours. What is the average speed in km/h?

Answer: _____

15 A freezie costs \$1.00. It is 25% off. How much is the discount?

Answer: _____



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Part D · Word Problems (continued)

16 A triangular flag has a base of 34 cm and a height of 24 cm. What is its area?

Answer: _____



Grade 7 Algebra Unit Test (Answer Key)

Part A · Simplifying Expressions

01 $6(1x + 11) =$

$6x + 66$

02 $3(5x - 8) =$

$15x - 24$

03 $4(5x + 1) =$

$20x + 4$

04 $9(1x + 8) =$

$9x + 72$

Part B · Linear Equations

05 $3x + 1 = 25 \quad x = 8$

06 $12x - 2 = 34 \quad x = 3$

07 $3x - 1 = -19 \quad x = -6$

08 $8x - 9 = -97 \quad x = -11$

Part C · Inequalities

Solve, then graph the solution on the number line.



09 $8x + 8 < 80$

$x < 9$



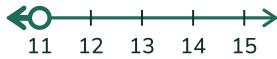
10 $7x + 3 \leq 101$

$x \leq 14$



Grade 7 Algebra Unit Test (Answer Key)

Part C · Inequalities (continued)



11 $9x + 1 < 100$

$x < 11$



12 $5x + 3 < 68$

$x < 13$

Part D · Word Problems

13 A soccer league had 380 players last season. This season it has 5% more. How many players does it have this season?

399 players

14 Anika cycled 64 km in 4 hours. What is the average speed in km/h?

16 km/h

15 A freezie costs \$1.00. It is 25% off. How much is the discount?

\$0.25

16 A triangular flag has a base of 34 cm and a height of 24 cm. What is its area?

408 cm²