Grade 8 Pre-Algebra Worksheet

Name: _____ Date: _____ Score: _____

Solve for the variable. Write your answer on the line.

1. If x + 3 < 11, and x is a positive integer, what is the largest possible value of x?

   _____

2. Solve: x + 14 = 24

   _____

3. If x + 4 < 6, and x is a positive integer, what is the largest possible value of x?

   _____

4. If x + 2 < 15, and x is a positive integer, what is the largest possible value of x?

   _____

5. If x + 2 < 12, and x is a positive integer, what is the largest possible value of x?

   _____

6. Solve: x + 5 = 11

   _____

7. Simplify: 3x + 1x

   _____

8. If x + 7 < 10, and x is a positive integer, what is the largest possible value of x?

   _____

9. If x + 3 < 15, and x is a positive integer, what is the largest possible value of x?

   _____

10. If x + 10 < 17, and x is a positive integer, what is the largest possible value of x?

    _____

11. Evaluate 5x + 7 when x = 7

    _____

12. Simplify: 6x + 5x

    _____

13. Solve: x + 6 = 21

    _____

14. Solve: x + 16 = 17

    _____

15. Evaluate x^2 + 7 when x = 10

    _____

16. Simplify: 8x + 4x

    _____

17. Solve: x + 6 = 19

    _____

18. If x + 3 < 9, and x is a positive integer, what is the largest possible value of x?

    _____

19. Evaluate 5x + 8 when x = 8

    _____

20. Simplify: 8x + 2x

    _____

21. If x + 6 < 15, and x is a positive integer, what is

the largest possible value of x?

_____

22. Evaluate 3x 7 when x = 6

_____

23. Simplify: 2x + 6x

_____

24. Evaluate 4x + 8 when x = 3

_____

25. Solve: x + 15 = 25

_____

26. Simplify: 3x + 6x

_____

27. Solve: x + 12 = 21

_____

28. Evaluate 4x 5 when x = 6

_____

29. Simplify: 7x + 1x

_____

30. Solve: x + 4 = 10

_____

ANSWER KEY

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1. If x + 3 < 11, and x is a positive integer, what is the largest possible value of x?
   7
2. Solve: x + 14 = 24
   10
3. If x + 4 < 6, and x is a positive integer, what is the largest possible value of x?
   8
4. If x + 2 < 15, and x is a positive integer, what is the largest possible value of x?
   12
5. If x + 2 < 12, and x is a positive integer, what is the largest possible value of x?
   11
6. Solve: x + 5 = 11
   6
7. Simplify: 3x + 1x
   4x
8. If x + 7 < 10, and x is a positive integer, what is the largest possible value of x?
   10
9. If x + 3 < 15, and x is a positive integer, what is the largest possible value of x?
   16
10. If x + 10 < 17, and x is a positive integer, what is the largest possible value of x?
    17
11. Evaluate 5x + 7 when x = 7
    42
12. Simplify: 6x + 5x
    11x
13. Solve: x + 6 = 21
    15
14. Solve: x + 16 = 17
    1
15. Evaluate x^2 + 7 when x = 10
    107
16. Simplify: 8x + 4x
    12x
17. Solve: x + 6 = 19
    13
18. If x + 3 < 9, and x is a positive integer, what is the largest possible value of x?
    7
19. Evaluate 5x + 8 when x = 8
    48
20. Simplify: 8x + 2x
    10x
21. If x + 6 < 15, and x is a positive integer, what is the largest possible value of x?

14

22. Evaluate 3x 7 when x = 6

    11

23. Simplify: 2x + 6x

    8x

24. Evaluate 4x + 8 when x = 3

    20

25. Solve: x + 15 = 25

    10

26. Simplify: 3x + 6x

    9x

27. Solve: x + 12 = 21

    9

28. Evaluate 4x 5 when x = 6

    19

29. Simplify: 7x + 1x

    8x

30. Solve: x + 4 = 10

    6