

Name \_\_\_\_\_

(3.1) Simplify.

1)  $(m^2 + 6) + (m^2 - 4m)$

2)  $(-x - 8) + (5x - 7)$

3)  $(-6x + 4y) + (-x + y)$

4)  $(8y + 12) - (-5y + 3)$

5)  $(7x + 6) - (-x + 1)$

6)  $-8(7m - 4)$

7)  $-3(y + 7) + 9y$

8)  $2 + 4(8t + 6)$

9)  $4 - 5(3w - 5) + w$

(3.2) Translate the phrase to an algebraic expression. Use  $n$  for the variable unless otherwise stated.

10) eleven less than a number

11) negative seven plus the product of nine and some number

Translate the sentence to an equation using  $x$  as the variable. Do not solve the equation.

12) four less than a number gives fifteen.

13) Dividing 24 by a number is 8.

14) Twenty-four less than a number is equal to the product of five and  $x$ .

(3.3) Use the addition property of equality to solve the equation.

15)  $-24 = 25 + a$

16)  $11x = 10x + 17$

Use the multiplication property of equality to solve the equation.

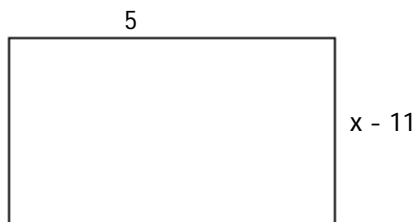
17)  $2a = -14$

18)  $\frac{x}{7} = 14$

Solve the problem.

19) The formula for the area of a rectangle is  $A = lw$ . Find the length of a rectangle with a width of 14 feet and an area of 140 square feet.

20) Write the simplified expression for the area of the rectangle.



## Answer Key

Testname: WKS\_3.1\_3.2\_3.3

- 1)  $2m^2 - 4m + 6$
- 2)  $4x - 15$
- 3)  $-7x + 5y$
- 4)  $13y + 9$
- 5)  $8x + 5$
- 6)  $-56m + 32$
- 7)  $6y - 21$
- 8)  $32t + 26$
- 9)  $-14w + 29$
- 10)  $n - 11$
- 11)  $-7 + 9n$
- 12)  $x - 4 = 15$
- 13)  $24 \div x = 8$
- 14)  $x - 24 = 5x$ ,
- 15)  $-49$
- 16)  $17$
- 17)  $-7$
- 18)  $98$
- 19)  $10$  feet
- 20)  $5x - 55$