

Unit 4 Objective 5 Remediation

Multiplying expressions containing variables

No calculators allowed!!

Directions:

- use Distributive Property to clear parentheses (if needed)
- remember to add the exponents of the variable when multiplying like bases

Example 1:

$$\begin{aligned} & 3x \cdot (-5x) \\ & (3)(-5)(x)(x) \\ & -15x^2 \end{aligned}$$

Example 2:

$$\begin{aligned} & \text{4x(2x - 3)} \\ & (4x)(2x) - (4x)(3) \\ & 8x^2 - 12x \end{aligned}$$

Simplify the following expressions. Use the Distributive Property if needed.

1. $(-2x)(11x)$

2. $5(4x^2) - 2(3x^2)$

3. $-2(x^2 + x)$

4. $(2x - 3x^2)6$

5. $x(x + 4)$

6. $3x(x - 8)$

7. $(2x + 10)(5x)$

8. $-7x(5 - x)$

9. $6x^2 - x(8x + 2)$

10. $-3x^2 - 4x(2 - x)$

11. $2(6x)$

12. $-2(4x - 1)$

13. $21x(3x)$

14. $x^2 - 2x(3 - x^2)$

15. $(8x - 2)5x$

16. $7x^2 - (3 - x^2)$

The formula for the area of a rectangle is $\text{Area} = \text{length} \cdot \text{width}$ ($A = lw$). Find the area for each rectangle by evaluating the formula for the given length and width.

17.

$l = 6x$

$w = 4x + 2$



18.

$l = 10 \text{ in.}$

$w = 3.5 \text{ in.}$



19.

$\text{width} = 2x$

$\text{Length} = 3x$



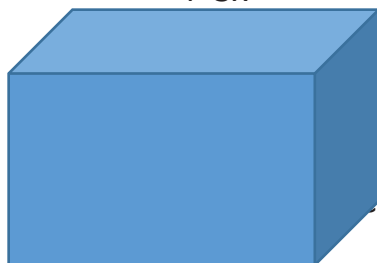
The formula for the volume of a rectangular prism is $\text{Volume} = (\text{Length})(\text{width})(\text{height})$

20.

$l = 3x$

$w = 2x$

$h = 2y$



ative 6 Remediation