

Applying the Distributive Property - Set 1

TDP 2

Instructions: Apply the Distributive Property to eliminate the group in each expression.

1 $4(2x + 10)$

$4(2x) + 4(10)$

$8x + 40$

2 $5(a + 2b)$

3 $-2(x + 1)$

4 $-3(x - 1)$

5 $a(a + b + c)$

6 $x(x^2 - x - 1)$

7 $3(2x + b + 6c)$

8 $-1(5x - 2y + 7z)$

9 $2x(y + 4)$

10 $x^2(x - 1)$

11 $-a(a - 2b)$

12 $3x(4x + 5y)$

Identifying Common Factors

TDP 4

Instructions: In order to apply the Distributive Property in reverse, you need to be able to identify factors that are common to each term in a polynomial. You can only factor something out if it's a factor of *every* term. For each polynomial, list any factors that all of its terms have in common. (If there are no common factors, write "none")

	common factors
1 $2x^2 + 6x + 4$	<u>2</u>
2 $3a^3 + 3a^2 + 3a$	<u>3a</u>
3 $bx + by - bz$	_____
4 $5a - 10b - 20c$	_____
5 $axy + bxc - yzx$	_____
6 $2xy + 2xa + 2xb$	_____
7 $x^6 + x^4 + x^2$	_____
8 $3a - 6b - 12c$	_____
9 $ay + by + bc$	_____
10 $-2x + (-2y) + (-2z)$	_____
11 $-4x^2 + 8x + 16$	_____
12 $6x^3 + 2x^2 - 4x$	_____

“Factoring Out” - Set 1

TDP 5

Instructions: Look at each polynomial to identify the common factor(s) in each term. Then, use the Distributive Property in reverse to factor them out.

1 $6x + 24$

$$6(x) + 6(4)$$

$$6(x + 4)$$

2 $5a^2 - 10a$

$$5a(a) - 5a(2)$$

$$5a(a - 2)$$

3 $2x^2 + 20$

4 $4a - 4b - 4c$

5 $3x^2 + 3y^2 + 3$

6 $9y - 99$

7 $ab + bc$

8 $2xy - 2xz$

9 $(-7)a^2 + (-7)b^2$

10 $5x + 40y + 25$

11 $-xy - 2xz$

12 $3x^3 - 6x^2 - 9x$