Distributive Property Practice Name _____

Using the Distributive Property to Expand Expressions

MULTIPLY

$$3(14-5)=3(14)-3(5)=42-15$$

1. $6(12+5)=$ _____

2. $3(4x+9)=$ _____

3. $2x(9-2)=$ _____

4. $9(2x^2+5x-6)=$ _____

Write each expression in simplest form by factoring out the GCF.

1. **Find the GCF between the number parts of each term in the expression.**
2. **Place the GCF outside the Parenthesis**
3. **Ask: What times the GCF will get you back to the original expression?**

MULTIPLY

$$9x+21=3(\ ?\ +\ ?\ )=3(3x+7)$$

GCF of 9 and 21

1. $24+15=$ _____

2. $16x+8=$ _____

3. $12x-22=$ _____

4. $18x-60y=$ _____

1. Use the Distributive Property to write an expression equivalent to $6z + 5z$.

Which expression is equivalent to $6z + 5z$ by the Distributive Property?

- A. $z(6 + 5)$
- B. $11z^2$
- C. $(6 + 5) + (z + z)$
- D. $65z$

2. **Open-Ended** Use the Distributive Property to write an expression equivalent to $42y - 12y$. Use pencil and paper. Use the Distributive Property and different common factors to write two more expressions equivalent to $42y - 12y$.

Which expression is equivalent to $42y - 12y$ by the Distributive Property?

- A. $y(42 - 12y)$
- B. $3(14y - 4y)$
- C. $54 - y$
- D. $42(y - 12)$

3. Find two expressions that are equivalent by the Distributive Property.

$6w - 6$ $\quad 6(3w - 7)$ $\quad 63w - 7$ $\quad 18w - 42$

Which two expressions are equivalent by the Distributive Property?

- A. $18w - 7$
- B. $18w - 42$
- C. $6(3w - 7)$
- D. $6w - 6$

4. You and a friend go shopping at a store where each item costs w dollars. You buy 8 items. Your friend buys 4 items. Use the Distributive Property to write equivalent expressions for the cost of your combined purchases.

Which two expressions for the cost of your combined purchases are equivalent by the Distributive Property?

- A. $4(w + 8)$
- B. $8w + 4w$
- C. $8w + 4$
- D. $w(8 + 4)$
- E. $8(w + 4)$

Distributive Property Practice Name Key

Using the Distributive Property to Expand Expressions

MULTIPLY

$$3(14-5)=3(14)-3(5)=42-15$$

1. $6(12+5)=$ 6(12) + 6(5) 72 + 30
2. $3(4x+9)=$ 3(4x) + 3(9) 12x + 27
3. $2x(9-2)=$ 2x(9) - 2x(2) 18x - 4x
4. $9(2x^2+5x-6)=$ 9(2x²) + 9(5x) - 9(6) $18x^2 + 45x - 54$

Write each expression in simplest form by factoring out the GCF.

1. **Find the GCF between the number parts of each term in the expression.**
2. **Place the GCF outside the Parenthesis**
3. **Ask: What times the GCF will get you back to the original expression?**

MULTIPLY

$$9x+21=3(\ ?\ +\ ?\ )=3(3x+7)$$

GCF of 9 and 21

GCF

1. $24+15=$ 3(8 + 5)
   24: 1, 2, (3), 4, 6, 8, 12, 24
   15: 1, (3), 5, 15
2. $16x+8=$ 8(2x + 1)
   16: 1, 2, 4, (8), 16
   8: 1, 2, 4, (8)
3. $12x-22=$ 2(6x - 11)
   12: 1, (2), 3, 4, 6, 12
   22: 1, (2), 11, 22
4. $18x-60y=$ 6(3x - 10y)
   18: 1, 2, 3, (6), 9, 18
   60, 1, 2, 3, 4, 5, (6), 10, 12, 15, 20, 30, 60

1. Use the Distributive Property to write an expression equivalent to $6z + 5z$.

Which expression is equivalent to $6z + 5z$ by the Distributive Property?

- A. $z(6 + 5)$
- B. $11z^2$
- C. $(6 + 5) + (z + z)$
- D. $65z$

2. **Open-Ended** Use the Distributive Property to write an expression equivalent to $42y - 12y$. Use pencil and paper. Use the Distributive Property and different common factors to write two more expressions equivalent to $42y - 12y$.

Which expression is equivalent to $42y - 12y$ by the Distributive Property?

- A. $y(42 - 12y)$
- B. $3(14y - 4y)$
- C. $54 - y$
- D. $42(y - 12)$

3. Find two expressions that are equivalent by the Distributive Property.

$6w - 6$ $\quad 6(3w - 7)$ $\quad 63w - 7$ $\quad 18w - 42$

Which two expressions are equivalent by the Distributive Property?

- [ ] A. $18w - 7$
- [x] B. $18w - 42$
- [x] C. $6(3w - 7)$
- [ ] D. $6w - 6$

4. You and a friend go shopping at a store where each item costs w dollars. You buy 8 items. Your friend buys 4 items. Use the Distributive Property to write equivalent expressions for the cost of your combined purchases.

Which two expressions for the cost of your combined purchases are equivalent by the Distributive Property?

- [ ] A. $4(w + 8)$
- [x] B. $8w + 4w$
- [ ] C. $8w + 4$
- [x] D. $w(8 + 4)$
- [ ] E. $8(w + 4)$