

Homework 1.3 Identity and Equality Properties:

1. Explain whether 1 can be an additive identity.
2. Write two equations demonstrating the transitive property.
3. Explain why 0 has no multiplicative inverse.

Directions: Name the property being used, then find n.

4. $13n = 0$
5. $17 + 0 = n$
6. $6n = 1$

Directions: Evaluate each of the following and name the property used in each step.

7. $6(12 - 48 \div 4)$
8. $(15 \cdot \frac{1}{15} + 8 \cdot 0) \cdot 12$

Directions: Evaluate each expression.

9. $12(4) - 5(4)$
10. $\frac{(6+2)^2}{16} + 3(9)$

Homework 1.4 The Distributive Property:

1. Write an expression that has five terms, three of which are like terms and one term with a coefficient of one.
2. Courtney and Ben are simplifying $4w^4 + w^4 + 3w^2 - 2w^2$. Who is correct? Explain.

Courtney $4w^4 + w^4 + 3w^2 - 2w^2$ $= (4+1)w^4 + (3-2)w^2$ $= 5w^4 + w^2$	Ben $4w^4 + w^4 + 3w^2 - 2w^2$ $= (4)w^4 + (3-2)w^2$ $= 4w^4 + w^2$
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Directions: Rewrite each expression using the Distributive Property. Then simplify.

3. $6(12 - 2)$
4. $2(4 + t)$
5. $(g - 9)5$
6. $3(2x + 6) - 2$
7. $2(a - 3b + 2c)$
8. $4(8p + 4q - 7r)$
9. $5(6m + 4n - 3n)$
10. $5(3 + 2)a + \frac{a}{5} + \frac{2}{5}a$

Homework 1.5 The Commutative and Associative Properties:

1. Is there a commutative property of division? Explain.
2. Write an example of the Commutative property.
3. Write an example of the Associative property.

Directions: Evaluate each expression

4. $14 + 18 + 26$
5. $3\frac{1}{2} + 4 + 2\frac{1}{2}$
6. $5 \cdot 3 \cdot 6 \cdot 4$

Directions: Simplify each expression.

7. $4x + 5y + 6x$
8. $3(4x + 2) + 2x$
9. $\frac{3}{4} + \frac{2}{3}(s + 2t) + s$
10. Study!