

Name: _____

Ms. Napolitano

Date: _____

6.EE.3

Day 7 Equivalent Expressions Combining Like terms

Classwork

Identifying Parts of an Expression

Term – The parts of the expression that are separated by + or – sign.

Example: $3x^2 + 6x + 14 - 2x$; This expression has 4 terms.

Constant – A number without the variable.

Example: 9, 100, 1, 6, 5, 0, etc.

Like Terms – Terms with the same variable(s) raised to the same power(s).

Example: $6x$ and x are like terms.

14 and 2 are like terms.

$3xy$ and $4xy$ are like terms.

$9x^2$ and $16x^2$ are like terms.

Coefficient – Numbers that are multiplied by at least one variable.

Example: For the expression $3x + 6$; 3 is the coefficient.

**Like Terms have the SAME VARIABLE
with the SAME EXPONENT!**

Check for Understanding

Combining like terms:

- Like terms have the _____ Variable and same _____.
- If you have like terms then you _____ them by _____ or _____ their _____.
- When you Combine like terms, the _____ and _____ stay the same.

Directions: Simplify the expression.

$$x + 3x$$

$$2y + 6y$$

$$6b - 5b$$

$$7c^2 + 9 - c^2$$

$$7g + 4g^2 - 5g$$

$$x + x + x + x^2$$

$$K + 6 + 2k$$

$$2p + 9p^2 + 3p$$

$$b + bn + 6b + 12bn$$

$$p + 2p + 3p + p^2$$

$$5x + 10 - 2x$$

$$7 + 10m + 20$$

$$6 + X - 4 + 7X$$

$$8xy + 7x - 5 + 8x$$

$$7p + 8 - 4 - 6p$$

1) Apply the properties of operations to select an expression equivalent to the expressions below. $x + 12x - 7x$

- a) $13x - 7$
- b) $x + 19$
- c) $5x$
- d) $6x$

Answer:

2) What is the equivalent expression to $10k + 13k^2 + 10k^2$?

- a) $33k^5$
- b) $33k^2$
- c) $10k + 23k^4$
- d) $10k + 23k^2$

Answer:

3) Ms. Napolitano asked the class to create an equivalent expression for $2x + 3 + 4 + 5x$. Four of her scholars wrote different expressions.

Jessica wrote $3x + 7$

Jaevion wrote $14x$

Eniole wrote $7 + 7x$

Torren wrote $7x^2 + 7$

Which scholar was correct?

- | | |
|------------|------------|
| a) Jessica | c) Jaevion |
| b) Eniole | d) Torren |

Answer:

Independent Practice _Combining Like Terms

6.EE.3

<p>5. How many coefficients are in the expression: $6n + 7n^2 + 3n - 4 + n$?</p> <p>a) 3 b) 6 c) 5 d) 4</p> <p>Answer:</p>	<p>1. How many terms are in the expression: $6n + 7n^2 + 3n - 4 + n$?</p> <p>a) 5 b) 2 c) 6 d) 4</p> <p>Answer:</p>
<p>2. Which lists all of the constants in the expression? $1 + h + 12 + 6a + 20h - 5$</p> <p>a) h, 6a, 20h b) h and 12 c) 1, -5, 12 d) 1, 6a, -5</p> <p>Answer:</p>	<p>3. Which expression contains like terms?</p> <p>a) $b + y + x$ b) $x^3 + 7y + 3x^4$ c) $13x + 4x^2$ d) $y^3 + 6 + 10y^3$</p> <p>Answer:</p>

For # 5 – 14, simplify the expressions by combining like terms.

<p>4. $7x + 6y + 4 + x$</p> <p>a) $6x + 6y + 4$</p> <p>b) $8x + 6y + 4$</p> <p>c) $14x + 4$</p> <p>d) $7x + 6y + 4 + 1$</p> <p>Answer:</p>	<p>5. $6x^2 + 12 - 5$</p> <p>a) $6x + 6$</p> <p>b) $6x^2 + 7$</p> <p>c) $6x^2 + 17$</p> <p>d) $6x^2 - 7$</p> <p>Answer:</p>
<p>6. $11 + n^4 + 9n + 2n^2 + 7n$</p> <p>a) $19n^4 + 11$</p> <p>b) $2n^2 + 17n + 11$</p> <p>c) $n^4 + 2n^2 + 16n + 11$</p> <p>d) $1n^4 + 2n^2 + 17n + 11$</p> <p>Answer:</p>	<p>7. $8s + 15 - 7 + 8s + t$</p> <p>a) $16 + t + 8s$</p> <p>b) $16s + t + 8$</p> <p>c) $t + 8$</p> <p>d) $16s + t + 22$</p> <p>Answer:</p>
<p>8. $2w + 18 - 6 + 17w$</p> <p>a) $19w + 12$</p> <p>b) $19w + 5$</p> <p>c) $19w + 15$</p> <p>d) $20w + 12$</p> <p>Answer:</p>	<p>9. $17b^2 + 21k + 11b^2 - 8k + 9$</p> <p>a) $29b^2 + 14k + 9$</p> <p>b) $28b^2 + 29k + 9$</p> <p>c) $29b^2 + 15k + 9$</p> <p>d) $28b^2 + 13k + 9$</p> <p>Answer:</p>