

Name: _____ Algebra 10 Unit 7 Review

• Unit 7 Test on ~~Tuesday 12/3~~ **Thursday 12/5**DO NOW ~ Tuesday ~~11/26~~ **12/3**

Factor.

DOPS

$4r^2 - 9$

$(2r - 3)(2r + 3)$

**Classwork**The sum of $5x^4 + 2x^3 - 8$ and $8x^4 - 2x^3 + 3$ is?

$$\begin{array}{r}
 5x^4 + 2x^3 - 8 \\
 + \quad 8x^4 - 2x^3 + 3 \\
 \hline
 13x^4 + 0x^3 - 5
 \end{array}$$

What expression is equivalent to

$-3x(1 + 7x) - 2x(x + 6)$

$$\begin{array}{r}
 -3x - 21x^2 - 2x^2 - 12x \\
 -15x - 23x^2 \\
 -23x^2 - 15x
 \end{array}$$

If $A = 5n^3 + 8n + 1$ and $B = -2n^3 - 8n + 7$, then what does $A - B$ equal?

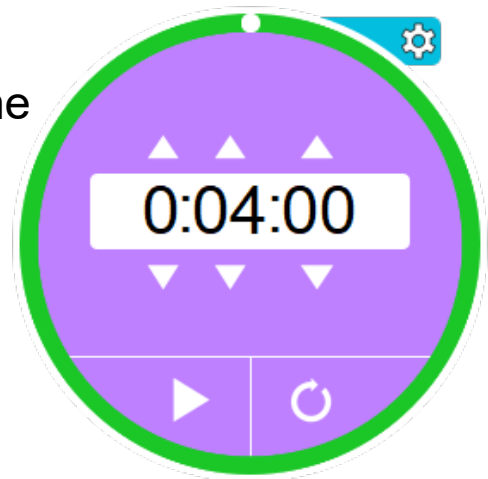
$$\begin{array}{r}
 5n^3 + 8n + 1 \\
 - \quad -2n^3 - 8n + 7 \\
 \hline
 7n^3 + 16n - 6
 \end{array}$$

What is the product of $(x + 3)$ and $(x - 6)$?

$$\begin{array}{r}
 (x + 3)(x - 6) \\
 x^2 - 6x + 3x - 18 \\
 x^2 - 3x - 18
 \end{array}$$

To earn your full participation point for the Do Now be sure to have completed all of the following by the time is up:

- 1) Be in your seat
- 2) Take out your calculator or grab one
- 3) Have last night's homework out
- 4) Complete the do now



DO NOW ~ ~~Monday 12/2~~

Wednesday 12/4

Factor.

$$v^2 + 2v - 15$$

$$(v + 5)(v - 3)$$

Handwritten work shows the factoring process with arrows indicating the distribution of terms: $v \cdot v = v^2$, $v \cdot (-3) = -3v$, $5 \cdot v = 5v$, and $5 \cdot (-3) = -15$. The final result is $(v + 5)(v - 3)$.

$$\frac{1}{3}, \frac{5}{5}$$



Classwork

What is the sum of $3x^2 - x - 2$ and $x^2 + 2x - 1$?

a) $4x^4 + x^2 - 3$

b) $3x^2 + x - 3$

*c) $4x^2 + x - 3$

d) $4x^2 - x - 3$

$$\boxed{3x^2} - \boxed{1x} - \boxed{2} + \boxed{1x^2} + \boxed{2x} - \boxed{1}$$

$$+ 4x^2 + 1x - 3$$

The sum of $4x^2 + x - 8$ and $x^2 + 9$ can be expressed as

a) $4x^2 + x + 1$

b) $4x^4 + x + 1$

*c) $5x^2 + x + 1$

d) $5x^4 + x + 1$

$$\boxed{4x^2} + \boxed{x} - \boxed{8} + \boxed{1x^2} + \boxed{9}$$

$$5x^2 + x + 1$$

Which binomial is equivalent to $3(x - 1) - 2(x - 3)$?

a) $x - 7$

b) $5x - 7$

c) $x + 5$

*d) $x + 3$

$$\boxed{3x} - \boxed{3} - \boxed{2x} + \boxed{6}$$

$$1x + 3$$

Mrs. Ferreri's Station ~ Factoring Foldable (Finish) then review multiplying

Express the product of $x + 5$ and $2x^2 + 7x - 10$ in standard form.

Find the product: $2x^2(3x - 4)$

Find an equivalent expression to $2x(x - 3) - 2x(x + 4)$.

Express the product of $2x - 3$ and $x + 4$ as a trinomial.

Express the product of $2a + 1$ and $a + 5$ as a trinomial.

Computer Station ~ No Computers today...Factor (GCF and DOPS)

- Factor completely: $2a^2 + 2a - 84$
- Factor: $25x^2 - 9$
- Express $4x^2 - 25$ as the product of two binomials.
- Factor: $b^2 - 4$
- Expressed in factored form, the binomial $2x^2y - 4xy^3$ is equivalent to
 - $2xy(x - 2y)$
 - $2xy(xy - 4y)$
 - $2xy(x - 2y^2)$
 - $2x^2y^3(y - 2)$

Mrs. Kennedy's Station ~ Review Adding & Subtracting Polynomials

1. From $6x^2 - 3x + 9$ subtract $2x^2 - 5x + 8$.
2. From $y^2 + 5y - 7$, subtract $y^2 - 3y - 4$.
3. The sum of $3x^2 + x - 7$ and $x^2 + 10$ can be expressed as
 - A. $4x^4 + x - 3$
 - B. $3x^2 + x + 3$
 - C. $3x^4 + x - 3$
 - D. $4x^2 + x + 3$
4. From $7x^2 - 4x$ subtract $5x^2 + 2x$.
5. Find the sum of $2x^2 - 5x - 2$ and $4x^2 - 6x + 8$.
6. Find the sum of $5x^3 - 3x^2 + 5$ and $-2x^3 + 6x^2 - 5$.
7. Find the sum of $7x^2 - 3x + 5$ and $8x + 2$.
8. From $5x^2 - 6x + 8$, subtract $3x^2 - 2x - 4$.
9. From $5x^2 + 3x - 6$ subtract $4x^2 - 5x + 6$.
10. Express the sum of $3x^3 - 7x^2 + 2$ and $-x^3 + 9x^2 - 5$ as a trinomial.

Independent Station ~ Factor (unFOIL)

1. Factor: $x^2 - 6x - 7$

2. Express $x^2 + 5x - 6$ as the product of two binomials.

3. Factor: $x^2 - 5x + 6$

4. Express $2x^2 - x - 3$ as the product of two binomials.

5. Express $2x^2 - 3x - 5$ as the product of two binomial factors.

Homework ~ Monday 12/2 - You must show work for each question.

Find the sum of $4a^2 - 7a - 5$ and $-8a^2 - 2a + 7$.

The expression $5x(x - 3) - 4x(x - 3)$ is equivalent to

- A. 1 B. $x - 3$ C. $x - 6$ D. $x - 27$

Subtract $5x^2 - 7x - 6$ from $9x^2 + 3x - 4$.

The expression $3x^2 - 7x + 2$ is equivalent to

- A. $(3x + 2)(x + 1)$ B. $(3x + 1)(x + 2)$
C. $(3x - 2)(x - 1)$ D. $(3x - 1)(x - 2)$

Be sure to complete the rest of this review packet. It will be collected on Tuesday.