

NAME _____

DATE _____

PER. _____

FACTORING TRINOMIALS – Day 2

Factor each trinomial completely.

1. $7x^2 - 12x - 4 =$ _____

2. $2x^2 - 162 =$ _____

3. $8x^2 - 28x + 32 =$ _____

4. $20x^3 - 8x^2 - 28x =$ _____

Answer the following.5. How is $3x^2 + 7x + 2$ expressed as the product of two binomials?

_____6. Write $x^2 - 64$ in factored form.

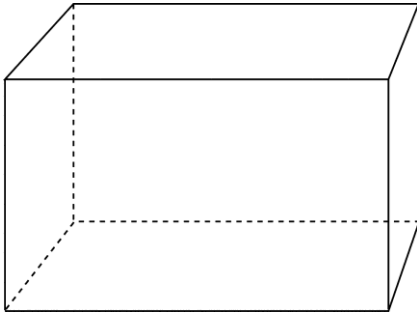
_____7. Which of the following is **not** one of the factors of $10x^2 - 6x - 4$?

A. 2

B. $x + 1$ C. $5x + 2$ D. $x - 1$ 8. Which expression is a factor of $x^2 + 6x - 16$?A. $x - 8$ B. $x - 2$ C. $x - 4$ D. $x - 3$

9. A rectangular prism has the volume shown below. What three expressions can be used to represent the dimensions of the prism?

$$V = 4x^3 + 24x^2 + 20x$$



Review. Show appropriate work.

10. Solve the following equation for x:

$$2(x + 3) - 5 = 17 - (4x - 2)$$

11. What value of x makes the following equation true?

$$21 = \frac{4}{9}x - 7$$

12. The Math Club sold hamburgers and cheeseburgers at a football game. They used 300 buns and made \$1000. If the hamburgers sold for \$3 each and cheeseburgers for \$3.50 each, which system of equations can be used to find h, the number of hamburgers and c, the number of cheeseburgers sold?

A. $3.50h + 3c = 1000$
 $h + c = 300$

C. $3.50c + 3h = 1000$
 $c + h = 300$

B. $3h + 3.50c = 300$
 $h + c = 1000$

D. $3.50c + 3h = 300$
 $c + h = 1000$

13. For the line $y = mx + b$, where $m < 0$ and $b > 0$, what change would occur if m is multiplied by -1 and b remains the same?

F. The y-intercept would become positive.

H. The new line is parallel to the original

G. The slope would become positive.

J. The new line is perpendicular to the original.