

NAME \_\_\_\_\_ DATE \_\_\_\_\_ PER. \_\_\_\_\_

**FACTORING POLYNOMIALS – Day 3**

Factor completely.

|                            |                               |
|----------------------------|-------------------------------|
| 1. $8x^2 + 2x - 3 =$ _____ | 2. $15x^2 + 35x - 30 =$ _____ |
| 3. $16x^2 - 25 =$ _____    | 4. $2x^2 - 2x - 6 =$ _____    |

Answer the following.

|  |   |
|--|---|
| 5. Can $x^2 - 9x - 36$ be expressed as the product of two binomials? If so, what are they?<br><br><br><br><br><br><br><br><br><br>Yes / No _____ | 6. Express $4x^2 - 324$ as a product of factors.<br><br><br><br><br><br><br><br><br><br>_____ |
| 7. Factor the binomial $5x^2 + 125$ .<br><br><br><br><br><br><br><br><br><br>_____   | 8. Write $81x^2 - 64$ in factored form.<br><br><br><br><br><br><br><br><br><br>_____          |

9. Which of the following is **not** one of the factors of  $2x^3 + 2x^2 - 4x$ ?

- A.  $2x$
- B.  $x + 1$
- C.  $x - 1$
- D.  $x + 2$

10. Which expression is a factor of  $36x^2 - 49$ ?

- A.  $18x - 7$
- B.  $6x - 49$
- C.  $18x - 49$
- D.  $6x - 7$

\_\_\_\_\_ 11. Which of the following shows  $3x^2 - 19x + 6$  in factored form?

- A.  $(3x + 1)(x + 6)$
- B.  $(3x - 1)(x - 6)$
- C.  $(3x + 1)(x - 6)$
- D.  $(3x - 1)(x + 6)$

**Review. Show appropriate work.**

\_\_\_\_\_ 12. What is the slope of the line whose equation is  $5(2x - 3) = -8y + 2$ ?

- A.  $\frac{7}{8}$
- B.  $\frac{5}{4}$
- C.  $-\frac{7}{8}$
- D.  $-\frac{5}{4}$

\_\_\_\_\_ 13. The graph of  $0.5x - 2y = 3$  is shown on the grid.

Which ordered pair is in the solution set of  $0.5x - 2y \geq 3$ ?

- A.  $(-2, 2)$
- B.  $(2, 1)$
- C.  $(2, -2)$
- D.  $(-2, -1)$

