

Factoring - Review Sheet Check-In ANSWER KEY

MONDAY, JUNE 1, 2020

Complete ALL questions by 5:00 pm today.

(1) Refer to #2 on today's Review Sheet. What is the GCF of the terms of the polynomial expression? *

Mark only one oval.

- A. 2
 B. 3
 C. 4
 D. 8

$$2. \frac{16x^2}{4} - \frac{12x}{4} + \frac{24}{4} \quad \text{GCF: } 4$$
$$4x^2 - 3x + 6$$
$$4(4x^2 - 3x + 6)$$

(2) Refer to #3 on today's Review Sheet. Write the complete FACTORED FORM of the polynomial expression in the space below. *

$$25(x - 2y)$$

$$3. \frac{25x}{25} - \frac{50y}{25} \quad \text{GCF: } 25$$
$$1x - 2y$$
$$25(x - 2y)$$

(3) Refer to #6 on today's Review Sheet. Which expression below is one of the FACTORS of the polynomial expression? *

Mark only one oval.

- A. $x - 1$
 B. $x + 1$
 C. $x + 6$
 D. $x - 7$

$$6. x^2 + 6x - 7 \quad \begin{array}{l} \text{Multiply to } -7 \\ \text{Add to } 6 \end{array} \quad \begin{array}{l} 1, -7 \\ -1, 7 \end{array}$$
$$(x - 1)(x + 7)$$

or

$$(x + 7)(x - 1)$$

(4) Refer to #10 on today's Review Sheet. Write the complete FACTORED FORM of the polynomial expression in the space below. *

$$(x - 2)(x - 21) \text{ or } (x - 21)(x - 2)$$

$$10. x^2 - 23x + 42 \quad \begin{array}{l} \text{Multiply to } 42 \\ \text{Add to } -23 \end{array}$$
$$\begin{array}{l} 1, 42 \\ 2, 21 \\ 3, 14 \\ 6, 7 \end{array} \quad \begin{array}{l} -1, -42 \\ -2, -21 \\ -3, -14 \\ -6, -7 \end{array}$$
$$(x - 2)(x - 21)$$

or

$$(x - 21)(x - 2)$$

(5) Refer to the FACTORED FORMS of #'s 7, 8 and 11 on today's Review Sheet. Which polynomial expression(s) have a factor of $(x - 8)$? *

Mark only one oval.

- A. 11, only
- B. 7 and 11, only
- C. 8 and 11, only
- D. 7, 8 and 11

<p>7. $x^2 + 1x - 56$ Multiply to -56 Add to 1</p> <table> <tr><td>1, -56</td><td>-1, 56</td></tr> <tr><td>2, -28</td><td>-2, 28</td></tr> <tr><td>4, -14</td><td>-4, 14</td></tr> <tr><td>7, -8</td><td>-7, 8</td></tr> </table> <p>$(x - 7)(x + 8)$ or $(x + 8)(x - 7)$</p>	1, -56	-1, 56	2, -28	-2, 28	4, -14	-4, 14	7, -8	-7, 8	<p>8. $x^2 - 14x + 40$ Multiply to 40 Add to -14</p> <table> <tr><td>1, 40</td><td>-1, -40</td></tr> <tr><td>2, 20</td><td>-2, -20</td></tr> <tr><td>4, 10</td><td>-4, -10</td></tr> <tr><td>5, 8</td><td>-5, -8</td></tr> </table> <p>$(x - 4)(x - 10)$ or $(x - 10)(x - 4)$</p>	1, 40	-1, -40	2, 20	-2, -20	4, 10	-4, -10	5, 8	-5, -8	<p>11. $x^2 - 64$ $\sqrt{x^2} = x$ $\sqrt{64} = 8$</p> <p>$(x + 8)(x - 8)$ or <u>$(x - 8)(x + 8)$</u></p>
1, -56	-1, 56																	
2, -28	-2, 28																	
4, -14	-4, 14																	
7, -8	-7, 8																	
1, 40	-1, -40																	
2, 20	-2, -20																	
4, 10	-4, -10																	
5, 8	-5, -8																	

(6) Refer to #16 on today's Review Sheet. The complete FACTORED FORM of the polynomial expression is *

Mark only one oval.

- A. $(10x - 9)(10x + 9)$
- B. $(10x - 3)(10x - 3)$
- C. $(10x - 3)(10x + 3)$
- D. $(50x - 3)(50x + 3)$

16. $100x^2 - 9$ $\sqrt{100x^2} = 10x$ $\sqrt{9} = 3$

$(10x + 3)(10x - 3)$
or
 $(10x - 3)(10x + 3)$