

Test on Factoring Review**Multiple Choice**

Identify the choice that best completes the statement or answers the question.

Factor the polynomial.

- _____ 1. $x^2 + 6x + 5$
- | | |
|---------------------|---------------------|
| a. $(x + 1)(x - 5)$ | c. $(x + 1)(x + 5)$ |
| b. $(x - 1)(x - 5)$ | d. $(x - 1)(x + 5)$ |

Short Answer**Factor the polynomial.**

1. $x^2 - 16x + 63$

2. $x^2 - 7x + 12$

3. $y^2 + 6y - 16$

Factor the trinomial.

4. $33x^2 - 79x + 40$

Name: _____

ID: A

5. $49x^2 - 21x + 2$

6. $x^2 - 3x - 10$

7. $4x^2 - 4x - 3$

Factor the polynomial.

8. $36t^2 - 16$

9. $p^2 - 169q^2$

10. $x^2 + 6x + 9$

11. $121x^2 - 44xy + 4y^2$

Name: _____

ID: A

Factor the polynomial completely.

12. $2x^7 - 10x^5 + 5x^3 - 25x$

13. $-80x^2 - 44x + 180$

Test on Factoring Review

Multiple Choice

Identify the choice that best completes the statement or answers the question.

Factor the polynomial.

C

1. $x^2 + 6x + 5$

a. $(x+1)(x-5)$

b. $(x-1)(x-5)$

c. $(x+1)(x+5)$

d. $(x-1)(x+5)$

Short Answer

Factor the polynomial.

1. $x^2 - 16x + 64$

$(x-8)(x-8)$

2. $x^2 - 7x + 12$

$(x-3)(x-4)$

3. $y^2 + 6y - 16$

$(y-2)(y+8)$

Factor the trinomial.

4. $33x^2 - 79x + 40$

1320
 $\swarrow \searrow$
 $-55 \quad -24$
 $33x^2 - 24x - 55x + 40$
 $3x(11x - 8) - 5(11x - 8)$
 $(11x - 8)(3x - 5)$

5. $49x^2 - 21x + 2$

$$(49x^2 - 14x)(7x + 2) - 14 - 7$$

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

$$(7x - 2)(7x - 1)$$

6. $x^2 - 3x - 10$

$$(x - 5)(x + 2)$$

7. $4x^2 - 4x - 3$

$$(4x^2 - 6x)(2x - 3) - 6 + 2$$

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

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

Factor the polynomial.

8. $36t^2 - 16$

$$(6t + 4)(6t - 4)$$

9. $p^2 - 169q^2$

$$(p - 13q)(p + 13q)$$

10. $x^2 + 6x + 9$

$$(x + 3)(x + 3)$$

11. $121x^2 - 44xy + 4y^2$

~~$$(121x^2 - 22xy) - 22xy + 4y^2 - 22$$~~

$$(121x^2 - 22xy)(-22xy + 4y^2)$$

$$11x(11x - 2y) - 2y(11x - 2y)$$

$$(11x - 2y)(11x - 2y)$$

Factor the polynomial completely.

$$12. (2x^7 - 10x^5) + (5x^3 - 25x)$$

$$2x^5(x^2 - 5) + 5x(x^2 - 5)$$

$$(2x^5 + 5x)(x^2 - 5)$$

$$13. -80x^2 - 44x + 180$$

$$-4(20x^2 + 11x - 45) \quad \begin{array}{l} -900 \\ \downarrow \\ 36 - 25 \end{array}$$

$$-4(20x^2 - 25x + 36x - 45)$$

$$-4[(20x^2 - 25x) + (36x - 45)]$$

$$-4[5x(4x - 5) + 9(4x - 5)]$$

$$\boxed{-4(4x - 5)(5x + 9)}$$

