

Review Factoring Practice

Factoring Using GCF:

Factor each of the following using the GCF and check by using the distributive property:

1) $2a + 2b$

$$2(a+b)$$

2) $5x^2 + 5$

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

$$4(x^2 - y^2) \\ 4(x+y)(x-y)$$

4) $6x - 18$

5) $3a^2 - 9$

$$3(a^2 - 3)$$

6) $10x - 15x^3$

7) $2x - 4x^3$

$$2x(1 - 2x^2)$$

8) $8x - 12$

Factoring Trinomials when a=1

Factor each trinomial into two binomials and check using FOIL:

1) $a^2 + 3a + 2$

$$(a+2)(a+1)$$

2) $c^2 + 6c + 5$

3) $x^2 + 8x + 7$

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

4) $r^2 + 12r + 11$

5) $x^2 - 10x + 24$

$$(x-6)(x-4)$$

6) $c^2 - 14c + 40$

7) $x^2 - 11x + 10$

$$(x-10)(x-1)$$

8) $y^2 - 6y + 8$

9) $x^2 - x - 2$

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

10) $c^2 + 2c - 35$

11) $x^2 - 11x - 42$

$$(x-14)(x+3)$$

12) $z^2 + 9z - 36$

Factoring Other

13) $3a^2 - 18a + 15$

$$3(a^2 - 6a + 5)$$

$$3(a-5)(a-1)$$

14) $2x^2 - 10x + 12$

15) $4y^2 + 16y - 20$

$$4(y^2 + 4y - 5)$$

$$4(y+5)(y-1)$$

16) $2z^2 - 24z - 26$

17) $x^2 - 9$

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

18) $x^2 - 36$

19) $x^2 - 121$

$$(x+11)(x-11)$$

20) $64x^2 - 81$

21) $3x^2 - 2x - 5$

$$x^2 - 2x - 5$$

$$(x-5)(x+3)$$

$$(3x-5)(x+1)$$

22) $2x^2 + 3x - 9$

23) $3x^2 - 8x + 4$

$$x^2 - 8x + 4$$

$$(x-6)(x-2)$$

$$(x-2)(3x-2)$$

24) $5x^2 + 19x + 12$

25) $6x^2 + 7x - 49$

$$x^2 + 7x - 49$$

$$(x+21)(x-14)$$

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

26) $9x^2 + 66x + 21$

27) $15x^2 - 27x - 6$

$$3(5x^2 - 9x - 2)$$

$$x^2 - 9x - 2$$

$$3(5x+1)(x-2)$$

28) $4x^2 - 35x + 49$