### Activity 1.3.1: Factoring Trinomials with 1 as Leading Coefficient

Total points = 25

- 1.  $x^2 + 4x 21$ =(x-3)(x+7)
- 2.  $x^2 5x 14$ =(x-7)(x+2)
- 3.  $2a^3 + 20a^2 + 48a$  $=2a(a^2+10a+24)$  $=2a(a+4)(a+6)\sqrt{}$
- 4.  $m^2 + m 12$ =(m-3)(m+4)
- 5.  $a^2 8a 48$ = (a-12)(a+4)
- 6.  $3m^2 + 6mn 45n^2 \checkmark$  $=3(m^2+2mn-15n^2)$   $\checkmark$ = 3(m-3n)(m+5n)
- 7.  $2b^3 + 10b^2c 28bc^2$  $=2b(b^2+5bc-14c^2)$  $=2b(b+7c)(b-2c)\sqrt{}$
- 8.  $c^2 11cd + 24d^2$ = (c-8d)(c-3d)
- 9.  $5m^3 20m^2 + 15m$  $=5m(m^2-4m+3)$ =5m(m-1)(m-3)
- 10.  $4a^2 + 24a 64$  $=4(a^2+6a-16)$ =4(a+8)(a-2)

### Activity 1.3.1: Factoring Trinomials with 1 as Leading Coefficient

Total points = 25

- 1.  $x^2 + 4x 21$ =(x-3)(x+7)
- 2.  $x^2 5x 14$
- =(x-7)(x+2)3.  $2a^3 + 20a^2 + 48a$  $=2a(a^2+10a+24)$
- $=2a(a+4)(a+6)\sqrt{}$ 4.  $m^2 + m - 12$
- = (m-3)(m+4)5.  $a^2 - 8a - 48$ = (a-12)(a+4)
- 6.  $3m^2 + 6mn 45n^2$  $= 3 (m^2 + 2mn - 15n^2) \checkmark$  $= 3(m-3n)(m+5n)\sqrt{}$
- 7.  $2b^3 + 10b^2c 28bc^2$  $=2b(b^2+5bc-14c^2)$
- $=2b(b+7c)(b-2c)\sqrt{}$ 8.  $c^2 - 11cd + 24d^2$  $=(c-8d)(c-3d)\checkmark$
- 9.  $5m^3 20m^2 + 15m$  $=5m(m^2-4m+3)$ =5m(m-1)(m-3)
- 10.  $4a^2 + 24a 64$  $=4(a^2+6a-16)$ =4(a+8)(a-2)

### Activity 1.3.1: Factoring Trinomials with 1 as Leading Coefficient

Total points = 25

- 1.  $x^2 + 4x 21$ =(x-3)(x+7)
- 2.  $x^2 5x 14$ =(x-7)(x+2)
- 3.  $2a^3 + 20a^2 + 48a$  $= 2a(a^2 + 10a + 24)$
- $=2a(a+4)(a+6)\sqrt{}$ 4.  $m^2 + m - 12 \checkmark$
- = (m-3)(m+4)5.  $a^2 - 8a - 48$
- =(a-12)(a+4)
- 6.  $3m^2 + 6mn 45n^2$  $= 3 (m^2 + 2mn - 15n^2) \checkmark$ = 3(m-3n)(m+5n)
- 7.  $2b^3 + 10b^2c 28bc^2$  $=2b(b^2+5bc-14c^2)$   $\checkmark$ =2b(b+7c)(b-2c)
- 8.  $c^2 11cd + 24d^2$  $=(c-8d)(c-3d)\checkmark$
- 9.  $5m^3 20m^2 + 15m$  $=5m(m^2-4m+3)$   $\checkmark$ =5m(m-1)(m-3)
- 10.  $4a^2 + 24a 64$  $=4(a^2+6a-16)$ =4(a+8)(a-2)

### Activity 1.3.1: Factoring Trinomials with 1 as Leading Coefficient

Total points = 25

- 1.  $x^2 + 4x 21$  $= (x-3)(x+7)\checkmark$
- 2.  $x^2 5x 14$  $= (x-7)(x+2)\checkmark$
- 3.  $2a^3 + 20a^2 + 48a$  $= 2a(a^2 + 10a + 24)$  $=2a(a+4)(a+6)\sqrt{}$
- 4.  $m^2 + m 12 \checkmark$ = (m-3)(m+4)
- 5.  $a^2 8a 48$ =(a-12)(a+4)6.  $3m^2 + 6mn - 45n^2$
- $= 3 (m^2 + 2mn 15n^2) \checkmark$  $= 3(m-3n)(m+5n)\sqrt{}$
- 7.  $2b^3 + 10b^2c 28bc^2$  $=2b(b^2+5bc-14c^2)$   $\checkmark$ =2b(b+7c)(b-2c)
- 8.  $c^2 11cd + 24d^2$ = (c-8d)(c-3d)
- 9.  $5m^3 20m^2 + 15m$  $=5m(m^2-4m+3)$   $\checkmark$ =5m(m-1)(m-3)
- 10.  $4a^2 + 24a 64$  $=4(a^2+6a-16)$ =4(a+8)(a-2)

## Activity 1.3.1: Factoring Trinomials with 1 as Leading Coefficient

Total points = 25

- 1.  $x^2 + 4x 21$ =(x-3)(x+7)
- 2.  $x^2 5x 14$ =(x-7)(x+2)
- 3.  $2a^3 + 20a^2 + 48a$  $=2a(a^2+10a+24)$
- $=2a(a+4)(a+6)\sqrt{}$ 4.  $m^2 + m - 12$
- =(m-3)(m+4)5.  $a^2 - 8a - 48$
- = (a-12)(a+4)6.  $3m^2 + 6mn - 45n^2$  $= 3 (m^2 + 2mn - 15n^2) \checkmark$

 $= 3(m-3n)(m+5n)\sqrt{}$ 

- 7.  $2b^3 + 10b^2c 28bc^2$  $=2b(b^2+5bc-14c^2)$ =2b(b+7c)(b-2c)8.  $c^2 - 11cd + 24d^2$
- $= (c-8d)(c-3d)\sqrt{}$
- 9.  $5m^3 20m^2 + 15m$  $=5m(m^2-4m+3)$   $\checkmark$ =5m(m-1)(m-3)
- 10.  $4a^2 + 24a 64$  $=4(a^2+6a-16)$ =4(a+8)(a-2)

# Activity 1.3.1: Factoring Trinomials with 1 as Leading Coefficient

Total points = 25

- 1.  $x^2 + 4x 21$ =(x-3)(x+7)
- 2.  $x^2 5x 14$
- =(x-7)(x+2)3.  $2a^3 + 20a^2 + 48a$
- $=2a(a^2+10a+24)$  $= 2a(a+4)(a+6)\sqrt{}$
- 4.  $m^2 + m 12$ =(m-3)(m+4)
- 5.  $a^2 8a 48$ = (a-12)(a+4)
- 6.  $3m^2 + 6mn 45n^2 \checkmark$  $= 3 (m^2 + 2mn - 15n^2) \checkmark$

 $= 3(m-3n)(m+5n)\sqrt{}$ 

- 7.  $2b^3 + 10b^2c 28bc^2$  $=2b(b^2+5bc-14c^2)$ =2b(b+7c)(b-2c)8.  $c^2 - 11cd + 24d^2$
- = (c-8d)(c-3d)
- 9.  $5m^3 20m^2 + 15m$  $=5m(m^2-4m+3)$   $\checkmark$ =5m(m-1)(m-3)
- 10.  $4a^2 + 24a 64$  $=4(a^2+6a-16)$ =4(a+8)(a-2)

# Activity 1.3.1: Factoring Trinomials with 1 as Leading Coefficient

Total points = 25

- 1.  $x^2 + 4x 21$  $= (x-3)(x+7) \checkmark$ 2.  $x^2 - 5x - 14 \checkmark$
- =(x-7)(x+2)
- 3.  $2a^3 + 20a^2 + 48a$  $= 2a(a^2 + 10a + 24)$ =2a(a+4)(a+6)
- 4.  $m^2 + m 12 \checkmark$ =(m-3)(m+4)
- 5.  $a^2 8a 48$ = (a-12)(a+4)
- 6.  $3m^2 + 6mn 45n^2$  $=3(m^2+2mn-15n^2)$   $\checkmark$  $= 3(m-3n)(m+5n)\sqrt{}$
- 7.  $2b^3 + 10b^2c 28bc^2$  $=2b(b^2+5bc-14c^2)$   $\checkmark$  $=2b(b+7c)(b-2c)\sqrt{}$
- 8.  $c^2 11cd + 24d^2$ = (c-8d)(c-3d)
- 9.  $5m^3 20m^2 + 15m$  $=5m(m^2-4m+3)$   $\checkmark$ =5m(m-1)(m-3)
- 10.  $4a^2 + 24a 64$  $=4(a^2+6a-16)$ =4(a+8)(a-2)

#### Activity 1.3.1: Factoring Trinomials with 1 as Leading Coefficient

Total points = 25

- 1.  $x^2 + 4x 21$ = (x-3)(x+7)  $\checkmark$ 2.  $x^2-5x-14$   $\checkmark$
- =(x-7)(x+2)3.  $2a^3 + 20a^2 + 48a$
- $=2a(a^2+10a+24)$ =2a(a+4)(a+6)
- 4.  $m^2 + m 12 \checkmark$ =(m-3)(m+4)
- 5.  $a^2 8a 48$ = (a-12)(a+4)
- 6.  $3m^2 + 6mn 45n^2$  $= 3 (m^2 + 2mn - 15n^2) \checkmark$ = 3(m-3n)(m+5n)
- 7.  $2b^3 + 10b^2c 28bc^2$  $=2b(b^2+5bc-14c^2)$   $\checkmark$  $=2b(b+7c)(b-2c)\sqrt{c}$
- 8.  $c^2 11cd + 24d^2$ = (c-8d)(c-3d)
- 9.  $5m^3 20m^2 + 15m$  $=5m(m^2-4m+3)$   $\checkmark$ =5m(m-1)(m-3)
- 10.  $4a^2 + 24a 64$  $=4(a^2+6a-16)$ =4(a+8)(a-2)