

**Select an appropriate factoring strategy****1**

Find the greatest common factor of these numbers from their factorization by choosing the set of shared factors

$$4(= 2 \times 2)$$

$$6(= 2 \times 3)$$

A 12

B 2

C 13

D 16

E 1

F 8

2

$$(10 \times 7) + (2 \times 7)$$

A 14 x 12

B 27 x 11

C 10 x 19

D 21 x 21

E 17 x 23

F 12 x 7

3

What is the greatest common factor of these terms?

$$9p - 36$$

A

9

B

4

4

Which answer is the same expression as this

$$15tw + 6t$$

A $2(t + w)$ B $3w(t - 2)$ C $3t(5w + 2)$ D $2t(w + 2)$ E $w(t + 2)$ **5**

Which answer is the same expression as this

$$z(z + 3)$$

A

$$z - 3$$

B

$$2z^2 - 3z$$

C

$$z^3 + 3z$$

D

$$z^2 - 3z$$

E

$$3z^2 - 3z$$

F

$$z^2 + 3z$$

6

Remove a common factor from this quadratic to make it easier to factor

$$9w^2 + 63w + 108$$

A

$$9(w^2 + 7w + 12)$$

B

$$9(w^2 - 7w + 12)$$

7

Find common factors of the first 2 and last 2 terms

$$35x^2 + 25x + 28x + 20$$

A

$$5x(7x + 4) - 5(7x + 4)$$

B

$$5x(7x + 5) + 4(7x + 5)$$

8

Remove a common factor and factor this quadratic

$$7w^2 + 49w + 70$$

A

$$7(w + 5)(w + 2)$$

B

$$7(w + 70)(w + 59)$$

**Select an appropriate factoring strategy****9**

Find common factors of the first 2 and last 2 terms, and solve.

$$15q^2 + 40q + 9q + 24$$

A

$$(q + 8)(49q + 3)$$

B

$$(3q + 8)(5q + 3)$$

10

Which answer is the same expression as this

$$49mx + 28x - 56m - 32$$

A

$$(8m + 7)(x - 56)$$

B

$$(7m + 7)(4x - 4)$$

C

$$(7m + 49)(7x - 28)$$

D

$$(7m + 4)(7x - 8)$$

E

$$(m - 7)(7x + 4)$$

11

Remove a common factor and factor this quadratic

$$7r^2 - 63r + 140$$

A

$$7(r + 4)(r - 43)$$

B

$$7(r - 4)(r - 5)$$

12

Find common factors of the first 2 and last 2 terms, and solve.

$$6r^2 + 24r + 5r + 20$$

A

$$(6r - 4)(20r + 5)$$

B

$$(r + 4)(6r + 5)$$