

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Factor by grouping.

1) $r^3 + r^2 + 6r + 6$

A) $(r^2 + 6)(r + 6)$

B) $(r^2 + 6)(r + 1)$

C) $(r^2 + 1)(r + 6)$

D) $(r^2 + 6)(r - 6)$

2) $s^2 + 2s + 4s + 8$

A) $(s - 2)(s - 4)$

B) $s(s + 14)$

C) $(s + 2)(s - 4)$

D) $(s + 2)(s + 4)$

3) $uv - 2u + 5v - 10$

A) $(v - 2)(u - 5)$

B) $(v + 2)(u - 5)$

C) $5u(v - 2)$

D) $(v - 2)(u + 5)$

4) $28r^2 + 35ry - 4xr - 5xy$

A) $(4r + 5y)(x - 7r)$

B) $(4r + 5y)(7r - x)$

C) $(5r + 4y)(7r - x)$

D) $(4r + 5y)(7x - r)$

5) $6 - 2t - 3p + tp$

A) $(3 + t)(2 + p)$

B) $(3 + t)(2 - p)$

C) $(3 - t)(2 - p)$

D) $(3 - t)(2 + p)$

6) $x^3 + 7x^2 - 7x - 49$

A) $(x + 7)(x^3 - 7x)$

B) $(x + 7)(x^2 - 7)$

C) $(x - 7)(x^2 - 7)$

D) $(x^2 + 7)(x - 7)$

7) $2x^3 - 16x^2 - 3x + 24$

A) $(x + 24)(x^2 - 16x - 3)$

B) $(x - 8)(x^2 + 3)$

C) $(x - 8)(2x^2 - 3)$

D) $(x + 8)(2x^2 - 3)$

Factor completely.

8) $4x^2 + 4xy + 8x + 8y$

A) $4(x + y)(x + 2)$

B) $2(x + y)(x + 4)$

C) $4(y + x)(y + 2)$

D) $(x + y)(x + 2)$

9) $10m^2n + 20m^2 - 2mn - 4m$

A) $m(5m - 1)(n - 2)$

B) $(5m - 1)(n + 2)$

C) $2m(5m - 1)(n + 2)$

D) $2m(5m + 1)(n - 2)$