

3.2.3: Let's Practice Factoring

Date: _____

1. Factor by common factoring.

a) $a^3b^2 + ab^3$

b) $25x^8 - 30x^5 + 35x$

c) $7x(x+2) - 5(x+2)$

2. Factor as a difference of squares.

a) $y^2 - 81$

b) $9m^2 - 1$

c) $169x^2 - 144z^2$

3. Factor as a simple trinomial.

a) $t^2 + 3t - 10$

b) $x^2 - 10x - 24$

c) $x^2 - 8x + 16$

d) $x^4 + 6x^2 + 8$

4. Factor.

a) $3m^2 - m - 30$

b) $8m^2 - 5m - 3$

c) $7x^2 + x - 8$

5. Factor by grouping.

a) $a^2 - 2a + ad - 2d$

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

c) $y^3 + y^2 + 2y + 2$

6. Factor fully. It might be necessary to use more than one factoring strategy in order to fully factor these polynomial expressions.

a) $x^3 - 3x^2 + 2x$

b) $2x^4 - 18x^2$

c) $x^3 - x^2 - 4x + 4$