Factoring (Sections 5.3– 5.4)

Remember to always look first for a common factor and write in descending order.

1) Factor completely. You might want to use the Grouping Method: $6x^2 - 19x + 10$

2) Factor completely. You might want to use the Grouping Method: $8x^2 + 2x - 21$

3) Factor completely: $8w^2 - 98$

Factoring (Section 5.5)

Remember to always look first for a common factor and write in descending order. Then look at the number of terms to determine what to do next.

4) Factor completely: $2y^3 - 4y^2 - 70y$

5) Factor completely: $16x^2 + x^3 + 64x$

6) Factor completely: $10m^4 - 19m^3 - 15m^2$

7) Factor completely: $w^3 + 3w^2 - 4w - 12$

Quadratic Equations (Section 5.6)

8) Solve: $(x+2)(x-7) = -18$

Word Problems with Quadratic Equations (Section 5.7)

For each problem you need to define your variable, set up an equation, solve, and identify your answers with appropriate labels or units.

9) The base of a triangle is 10 cm longer than its height. The area is 48 cm². Find the height and the base.

10) In a sports league of x teams in which all teams play each other twice, the total number N of games played is given by $N = x^2 - x$. If a league has a total of 132 games, how many teams are in the league?