Practice Problems

These problems are not to be handed in, but try them first.

- From Chapter 1 Review (pages 40–42): 1–4, 11–13, 28&29, 36&37;
- From Chapter 2 Review (pages 120–124): 5–9, 13–16, 47–50, 71.A, 81.A, 88.A&B, 90.A&B.

Due Problems

These problems were due October 11 Tuesday.

1 *Solve the equation*

$$S = 2A + ph$$

for p. (Show at least one intermediate step.)

First, I swap sides to get p on the left (which you don't really have to do):

$$2A + ph = S.$$

Next, I subtract $2A$ from both sides to get the p term alone:

$$ph = S - 2A.$$

Finally, I divide both sides by h to get p itself alone:

$$p = \frac{S - 2A}{h}.$$

2 *Given that*

$$f(x) = 2x + 3$$

for all x, find $f(-5)$. (Show at least one intermediate step.)

I substitute -5 wherever x is:

$$f(-5) = 2(-5) + 3 = -10 + 3 = -7.$$

3 *A 20-foot ladder is leaning diagonally against the side of a building. Let x be the distance along the ground from the base of the ladder to the building, and let y be the height at which the ladder reaches the building, both in feet. Write down an equation relating x and y in this situation.*

The ladder is the hypotenuse of a right triangle whose legs are the distances given by x and y. Since everything is measured in feet,

$$x^2 + y^2 = (20)^2,$$

or

$$x^2 + y^2 = 400.$$