Using Formulas to Solve Problems

1. Solve the formula for the indicated variable:
(Similar to p.78 #22)

$$a = bcd \quad for \quad c$$

2. Solve the formula for the indicated variable:
(Similar to p.78 #24)

$$a = bx - c + d \quad for \quad b$$

3. Solve the formula for the indicated variable:
(Similar to p.78 #26)

$$A = \frac{BCE}{D} \quad for \quad D$$

4. Solve the formula for the indicated variable:
(Similar to p.78 #28)

$$A - AB = D - E \quad for \quad A$$

5. Solve the formula for the indicated variable:
(Similar to p.79 #32)

$$D = \frac{1}{3}C(A + B) \quad for \quad B$$

6. Solve for y:
(Similar to p.79 #38)

$$2x - 3y = 6$$

7. Solve for y:
(Similar to p.79 #40)

$$\frac{5}{4}x - \frac{1}{3}y = -2$$

8. The surface area S of a rectangular prism is given by the formula:

$$S = 2ab + 2bc + 2ac$$

where a, b, and c are the lengths of the sides.
a) Solve the formula for a
b) Determine a where the surface area is 158
square centimeters and whose side b is 5 centimeters and side c is 8 centimeters
(Similar to p.79 #42)

9. The model M = 3A + 100 was developed by Hays to model nothing
a) Solve the model for A
b) According to this model, what is A when M is 400?
(Similar to p.79 #44)