## I can solve for segment lengths

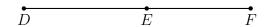
1. Given  $\overline{ABC}$ , AB = 8, and BC = 4. Find AC.



- 2. Given  $\overline{RST}$ , RS=5, and  $RT=7\frac{1}{2}$ .
  - (a) Find ST.



- (b) The postulate used in this problem is the \_\_\_\_\_\_.
- 3. Given  $\overline{DEF}$ , DE = x + 4, EF = x + 2, DF = 14. Find DE.
  - (a) Label the diagram with the given values.



- (b) Write an equation:
- (c) Solve for x

- (d) Answer the question. Find DE by substituting for x.
- (e) Check your answer

4. Early finishers: In the following two problems, solve for the value of x.

(a) 
$$3x - 3 = x + 7$$

(b) 
$$\frac{1}{2}(4x+2) = 7$$

5. Given the linear function f(x) = 2x - 6.

(a) 
$$f(x) = 0$$
. Find  $x$ .

(b) Find 
$$f(2)$$

6. Given  $x^2 + 8x + 7 = 0$ . Factor and find the roots.