**Fractions in Construction**

1) What is the total length of three boards below connected together?

$$20\frac{1}{4} in$$

$$4\frac{1}{8} in$$

$$3\frac{1}{2} in$$

2) You are creating a box and the view from the top of the box is show below; what are the dimensions of the piece of plywood you need to cut for the top of the box?

$$30\frac{5}{8} in$$

$$2\frac{3}{16} in$$

3) You have a 4-foot long board shown below; what would be the length of the board if you cut of $1\frac{3}{4}$ inches off each side?

4) You have a 4-foot long board shown below; how much would you need to cut off the board so that it measures 3 feet $2\frac{3}{8}$ inches?

5) The diagram below represents the framing of a wall of a house. If each board is $3\frac{1}{2}$ inches wide and needs to be placed 3 feet away, then where do the first three boards need to be placed?

6) What is the total length of a fence that has 28 vertical panels measuring $8\frac{1}{2}$ inches wide and 7 posts measuring $4\frac{1}{4}$ inches?

7) How many 8 foot and 8 inch horizontal boards are needed for the length of a building that is 120 feet long?