


# 7-5 Solve It!



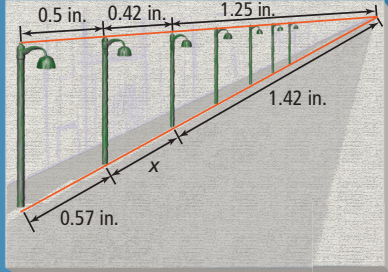
Remember to keep things in perspective and in proportion!

SOLVE IT!

**Getting Ready!**

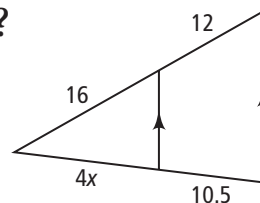
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An artist uses perspective to draw parallel lampposts along a city street, as shown in the diagram. What is the value of  $x$ ? Justify your answer.

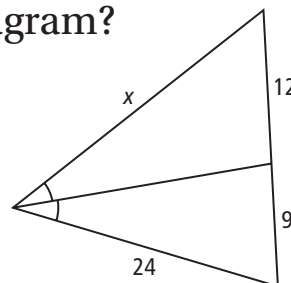


## 7-5 Lesson Quiz

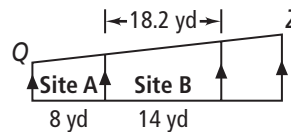
1. What is the value of  $x$  in the diagram?



2. What is the value of  $x$  in the diagram?



3. Do you UNDERSTAND? What is the length of Site A along  $\overline{QZ}$ ?



### Answers

#### Solve It!

0.48 in.; answers may vary.

Sample: The  $\parallel$  lines

determine similar  $\triangle$ , so

$$\frac{1.25}{1.25 + 0.42} = \frac{1.42}{1.42 + x}, \text{ which}$$

$$\text{simplifies to } \frac{1.25}{1.67} = \frac{1.42}{1.42 + x}.$$

$$\text{Then } 1.25(1.42 + x) = 2.3714$$

(Cross Products Prop.);

$$1.775 + 1.25x = 2.3714$$

(Distr. Prop.);  $1.25x = 0.5964$

(Subst. Prop. of =);  $x = 0.47712$

(Div. Prop. of Eq.);  $x \approx 0.48$ .

#### Lesson Quiz

1. 3.5

2. 32

3. 10.4 yd