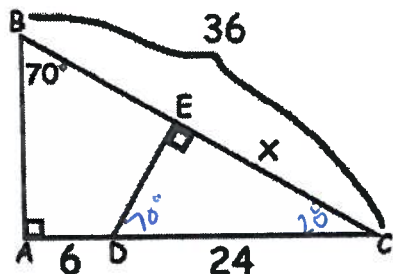


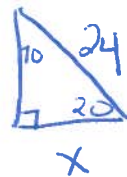
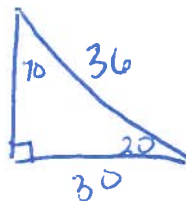
Find the Error

Name: _____

Please write in one or two complete sentences the error(s) for each problem.
Then write the correct proportion.



$$\frac{36}{x} = \frac{30}{24}$$



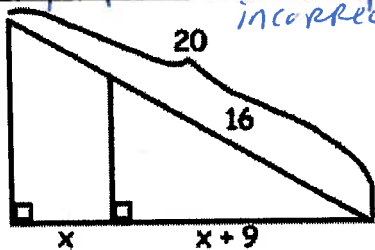
Explain the error(s) in complete sentences.

Side '36' corresponds with side '24' and '30' with 'x'.

The proportion is comparing the incorrect corresponding sides.

Correct proportion:

$$\frac{36}{30} = \frac{24}{x}$$



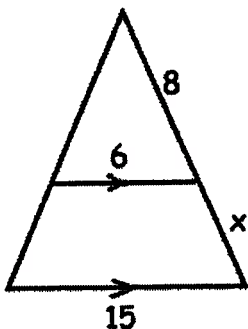
$$\frac{16}{x+9} = \frac{20}{x^2+9}$$

Explain the error(s) in complete sentences.

The length of $x+9$ is $2x+9$ not x^2+9 .

Correct proportion:

$$\frac{16}{x+9} = \frac{20}{2x+9}$$



$$\frac{8}{6} = \frac{x}{15}$$

Explain the error(s) in complete sentences.

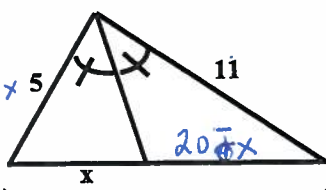
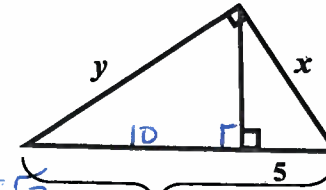
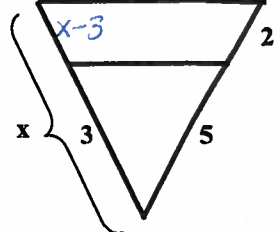
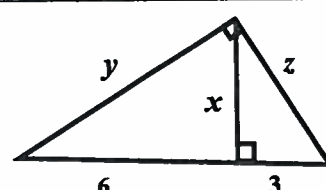
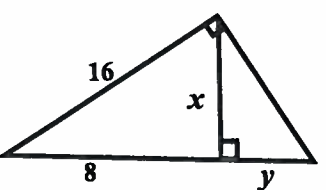
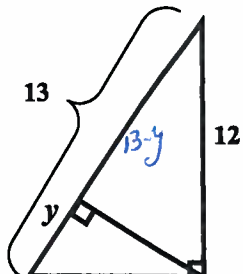
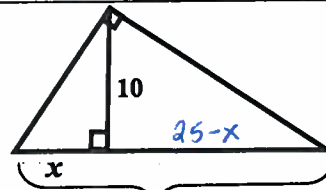
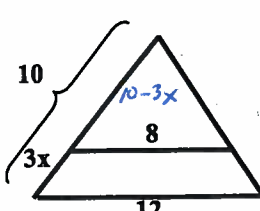
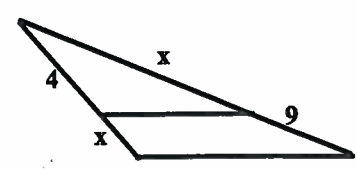
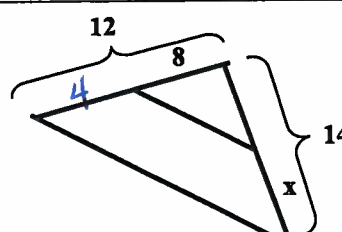
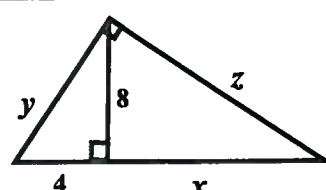
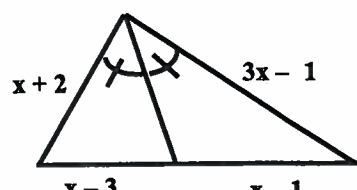
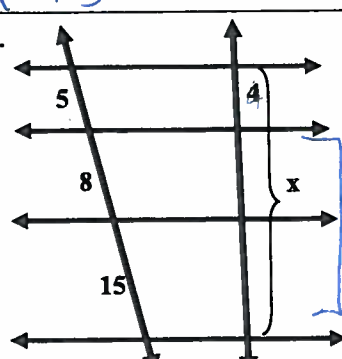
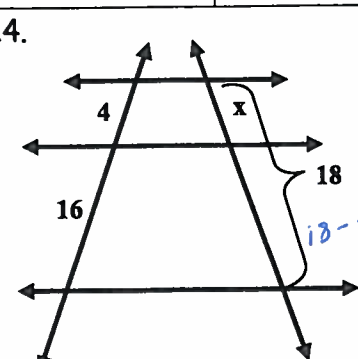
'x' is not the whole length of the big Δ ; it is $8+x$.

Correct proportion:

$$\frac{8}{6} = \frac{8+x}{15}$$

Geometric Mean and Proportions of Similar Triangles

Find the value of the variables. (Lines that appear parallel are parallel.)

<p>1.</p>  <p>$\frac{5}{11} = \frac{x}{20-x}$</p> <p>$100 - 5x = 11x$ $100 = 16x$ $x = 6.25$</p>	<p>2.</p>  <p>$x = 5\sqrt{3}$ $y = 10\sqrt{5}$</p>	<p>3.</p>  <p>$x = 4.2$</p>	
<p>4.</p>  <p>$x = 3\sqrt{2}$ $y = 3\sqrt{6}$ $z = 3\sqrt{3}$</p>	<p>5.</p>  <p>$x = 8\sqrt{3}$ $y = 24$</p>	<p>6.</p>  <p>$y = \frac{25}{13}$</p>	
<p>7.</p>  <p>$x = 5$ $x = 20$</p>	<p>8.</p>  <p>$x = 2$</p>	<p>9.</p>  <p>$x = 6$</p>	
<p>10.</p>  <p>$x = 4.6$ $x = 4\frac{2}{3}$</p>	<p>11.</p>  <p>$x = 16$ $y = 4\sqrt{5}$ $z = 40\sqrt{2}$</p>	<p>12.</p>  <p>$x = 5$ $x = \frac{1}{2}$</p>	
<p>13.</p>  <p>$\frac{28}{x} = \frac{5}{4}$</p> <p>$x = 22.4$</p>		<p>14.</p>  <p>$\frac{4}{16} = \frac{x}{18-x}$</p> <p>$72 - 4x = 16x$ $72 = 20x$ $x = 3.6$</p>	

$x = \frac{18}{5}$