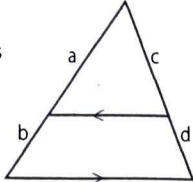
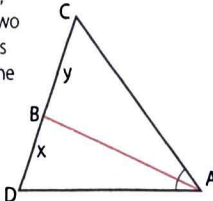
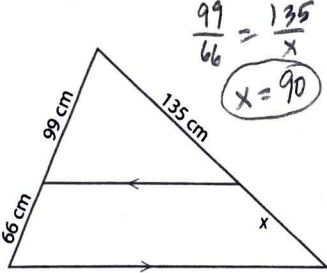
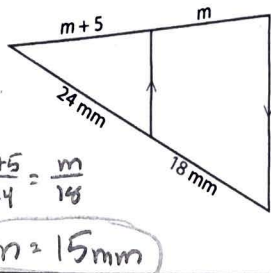
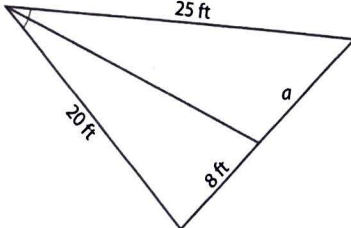
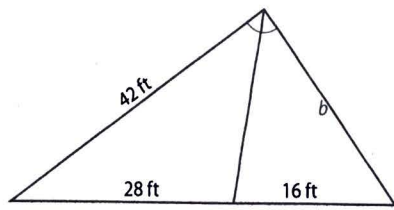
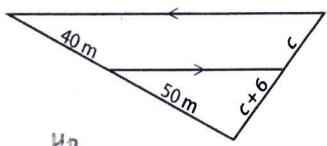
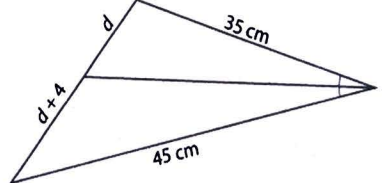


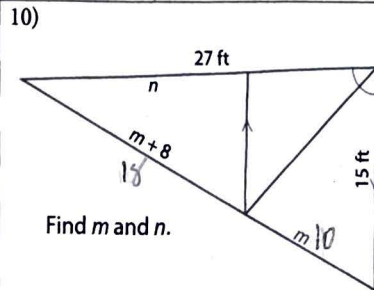
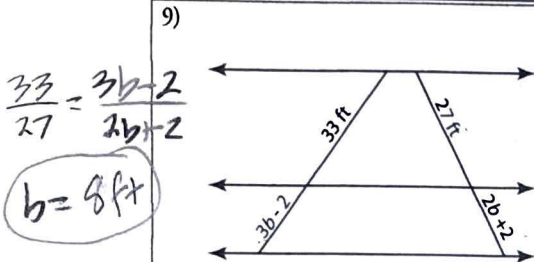
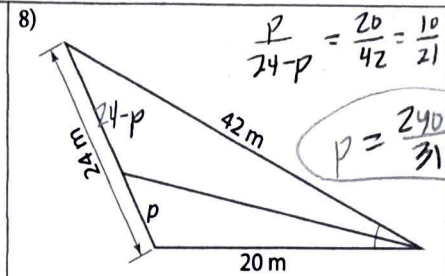
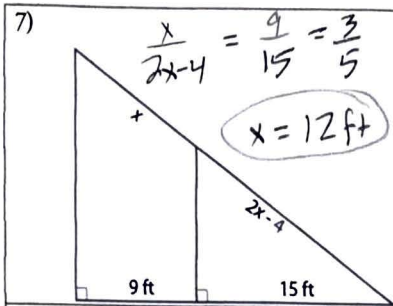


TRI. PROPORTIONALITY THEOREMS

The Weight Room

<p>Triangle Proportionality Theorem</p> <p>If a line is parallel to one side of a triangle, then it splits the other two sides into proportional sections.</p> $\frac{a}{b} = \frac{c}{d}$ 	<p>Angle-Bisector Theorem</p> <p>If \overline{AB} is an angle bisector, then it divides \overline{CD} into two segments whose lengths have the same ratio as the two sides.</p> $\frac{x}{y} = \frac{AD}{AC}$ 
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<p>1)</p> 	<p>2)</p> 
<p>3)</p> 	<p>4)</p> 
<p>5)</p> 	<p>6)</p> 

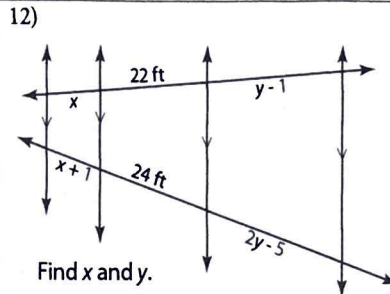
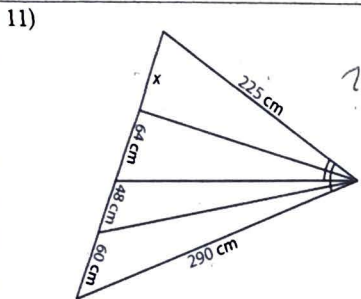


$\frac{m}{m+8} = \frac{15}{27}$

$m = 10 \text{ ft}$

$\frac{5}{9} = \frac{27-n}{n}$

$n = \frac{243}{14} \text{ ft}$



$\frac{x}{22} = \frac{x+1}{24}$

$x = 11 \text{ ft}$

$\frac{22}{y-1} = \frac{24}{2y-5}$

$y = \frac{43}{10} \text{ ft}$

13) Make up a problem involving the Triangle Proportionality Theorem such that the answer is an integer. Draw your problem (without the solution) on a blank sheet of paper so that you can share it with others.

13) Make up a problem involving the Triangle Angle-Bisector Theorem such that the answer will be an integer. Draw your problem (without the solution) on a blank sheet of paper so that you can share it with others.