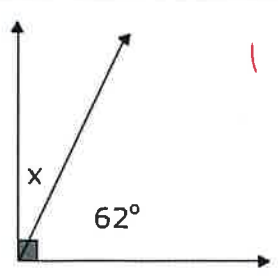
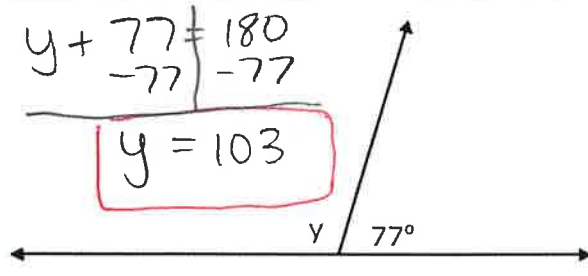
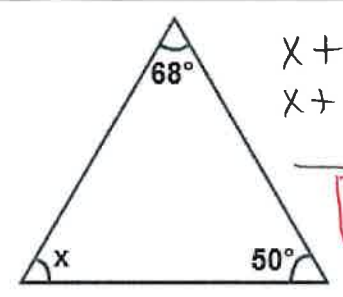
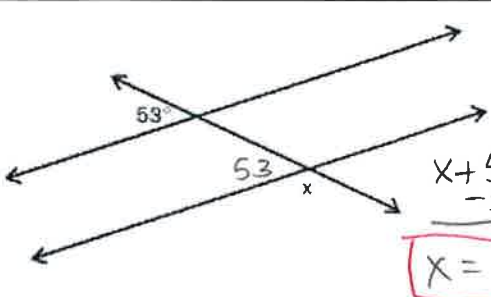


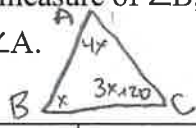
7th Grade Pre-AP Test Review: Triangle Properties and Angle Relationships

Directions: Show your work for each problem.

For questions 1-4, find the missing measure.

<p>1) </p> $\begin{array}{r} x + 62 = 90 \\ -62 \quad -62 \\ \hline x = 28 \end{array}$	<p>2) </p> $\begin{array}{r} y + 77 = 180 \\ -77 \quad -77 \\ \hline y = 103 \end{array}$
<p>3) </p> $\begin{array}{r} x + 68 + 50 = 180 \\ x + 118 = 180 \\ -118 \quad -118 \\ \hline x = 62 \end{array}$	<p>4) </p> $\begin{array}{r} x + 53 = 180 \\ -53 \quad -53 \\ \hline x = 127 \end{array}$

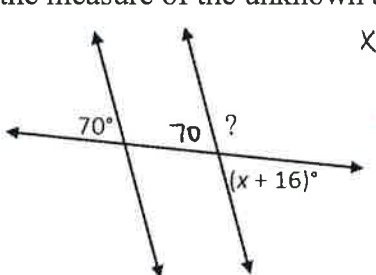
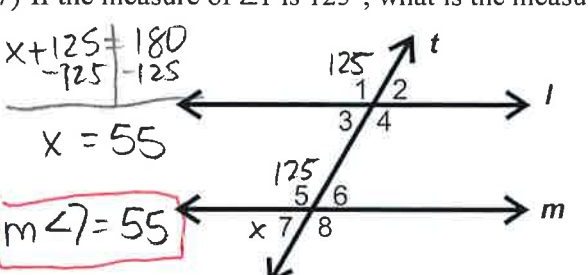
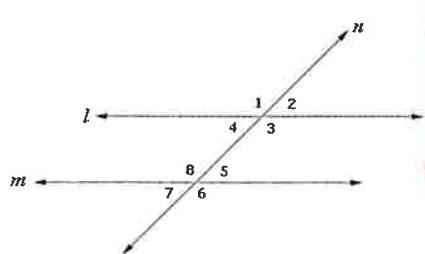
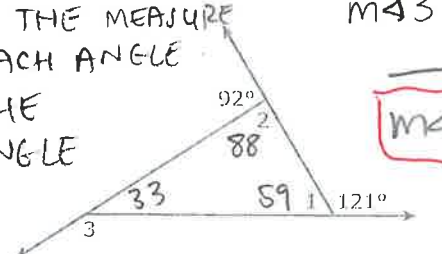
5) In $\triangle ABC$, the measure of $\angle A$ is four times the measure of $\angle B$, the measure of $\angle C$ is 20° greater than three times the measure of $\angle B$. Find the measure of $\angle A$.



$$\begin{array}{l} 4x + 3x + 20 + x = 180 \quad x = 20 \\ 8x + 20 = 180 \\ 8x = 160 \end{array}$$

$m\angle A = 4x$
 $m\angle A = 4 \cdot 20$
 $m\angle A = 80$

For questions 6-9, solve each of the following.

<p>6) What is the measure of the unknown angle?</p>  $\begin{array}{r} x + 70 = 180 \\ -70 \quad -70 \\ \hline x = 110 \end{array}$	<p>7) If the measure of $\angle 1$ is 125°, what is the measure of $\angle 7$?</p>  $\begin{array}{r} x + 125 = 180 \\ -125 \quad -125 \\ \hline x = 55 \end{array}$ <p>$m\angle 7 = 55$</p>
<p>8) What is the special angle pair name for $\angle 1$ and $\angle 6$?</p>  <p style="text-align: center; border: 1px solid black; padding: 5px; display: inline-block;">ALTERNATING EXTERIOR ANGLES</p>	<p>9) What is the measure of $\angle 3$?</p> <p>FIND THE MEASURE OF EACH ANGLE OF THE TRIANGLE</p>  $\begin{array}{r} m\angle 3 + 33 = 180 \\ -33 \quad -33 \\ \hline m\angle 3 = 147 \end{array}$

10) Which of the following statements is ALWAYS TRUE when parallel lines are cut by a transversal?

- A. The sum of the degree measure of corresponding angles is 180° .
- B. The angles in a vertical pair are acute.
- C. The sum of the degree measure of complementary angles is 180° .
- D. Corresponding angles are congruent.**