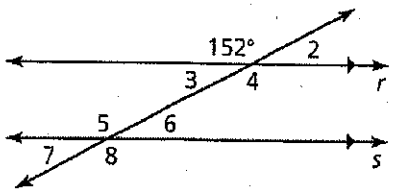
Name _____ Date _____

Chapter 3 Practice Assessment

Use the figure to find the measure of the angle. Explain your reasoning.



1. ∠4 152°, because they are vertical angles.

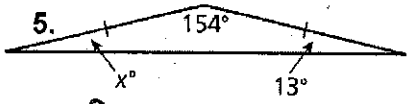
2. ∠5 152°, because they are corresponding angles

3. ∠8 152°, because ∠5 + ∠8 are vertical angles

4. ∠6 28°, ∠2 = 180 − 152 = 28° and ∠2 ≅ ∠6 because they are corresponding.

Find the measures of the interior angles.

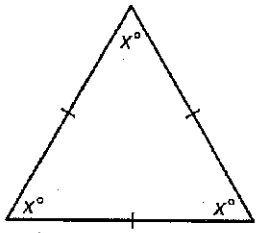
5.



180 − 167 = 13°

So $\boxed{x = 13°}$, also the two angles in an isosceles triangle are congruent.

6.



$\frac{3x}{3} = \frac{180}{3}$

$\boxed{x = 60°}$

Find the measure of the exterior angle.

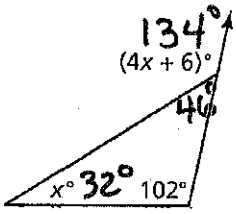
7.

90 + 53° = 143°

So $\boxed{u = 143°}$

because ∠A + ∠B = ∠O

8.



102 + x = 4x + 6

102 = 3x + 6

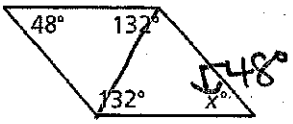
96 = 3x

$\boxed{x = 32°}$

4x + 6 = 32° + 102 = 134

Find the measures of the interior angles of the polygon.

9.



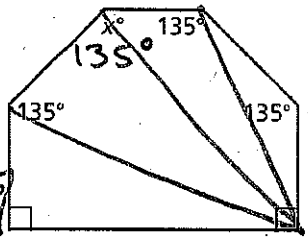
132 + 132 + 48 + x = 360

312 + x = 360 ⇒ $\boxed{x = 48°}$

$\boxed{180 * 2 = 360}$

↑ sum of interior angles

10.



$\boxed{180 * 4 = 720}$ ← sum of interior angles

90 + 90 + 135 * 3 + x = 720

180 + 405 + x = 585 + x = 720

$\boxed{x = 135}$