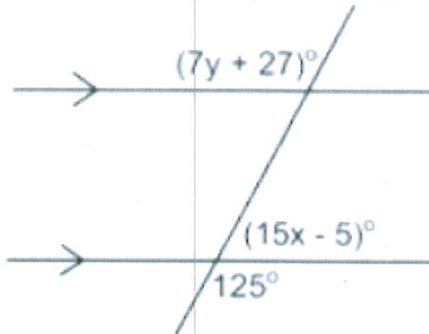


**Instructions:** Show all work. Use exact answers unless specifically asked to round. Be sure to complete all parts of each problem.

1. Solve for both  $x$  and  $y$  in the diagram below.



$$15x - 5 + 125 = 180$$

$$15x + 120 = 180$$

$$\frac{15x}{15} = \frac{60}{15}$$

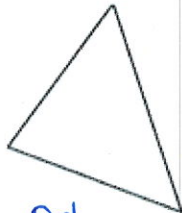
$$x = 4$$

$$7y + 27 = 125$$

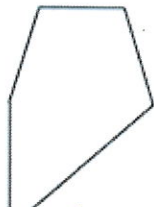
$$\frac{7y}{7} = \frac{98}{7}$$

$$y = 14$$

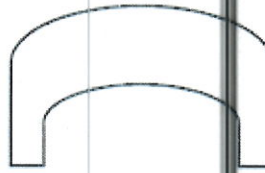
2. Identify whether the following shapes are polygons. If they are, label them with an appropriate name. If they are not, explain why not.



polygon  
triangle



polygon  
pentagon



not a  
polygon  
edges not straight

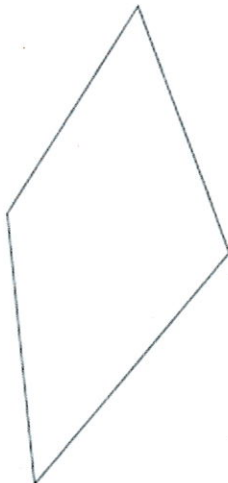


not a polygon  
curve not  
simple

3. Determine whether the polygons are concave or convex. Then find the sum of the interior angles using the formula  $SUM\ of\ Angles = 180^\circ(n - 2)$ .



pentagon  
 $n = 5$



quadrilateral  
 $n = 4$

$$180(5 - 2) = 180(3) = 540^\circ$$

$$180(4 - 2) = 180(2) = 360^\circ$$