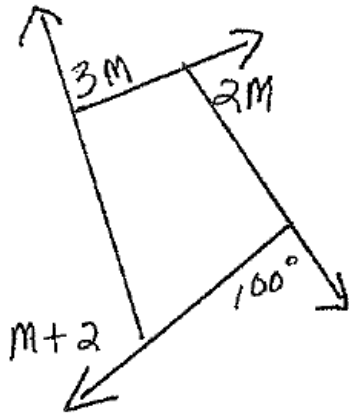


student grader - interior exterior of polygons

1. find m



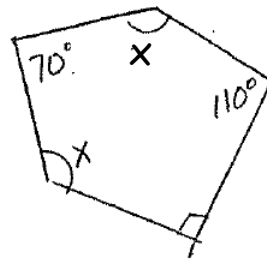
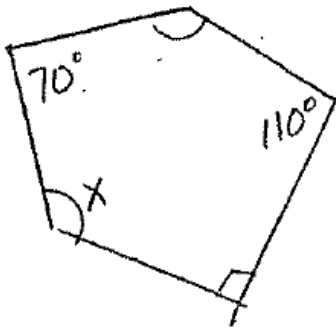
$$3m + 2m + 100 + 2 = 360$$

$$5m + 102 = 360$$

$$5m = 258$$

$$m = 51.6$$

2. find x



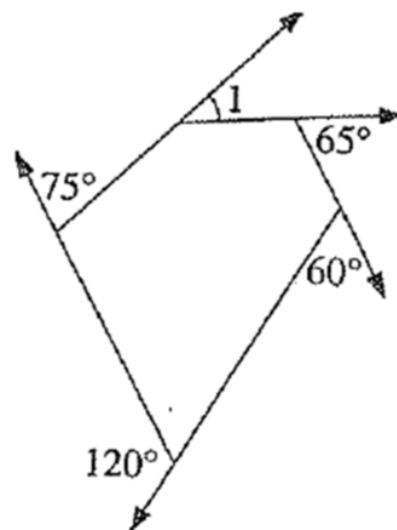
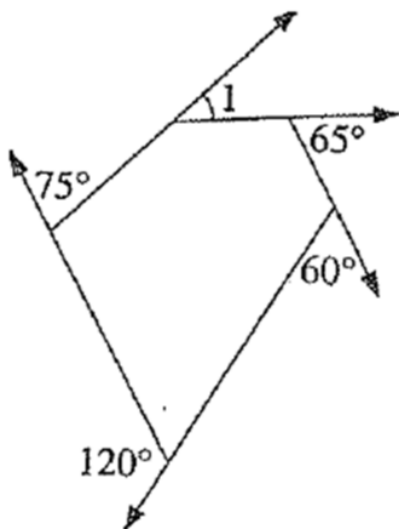
$$2x + 70 + 110 + 90$$

$$2x + 270 = 540$$

$$2x = 270$$

$$x = 135$$

3. find angle 1

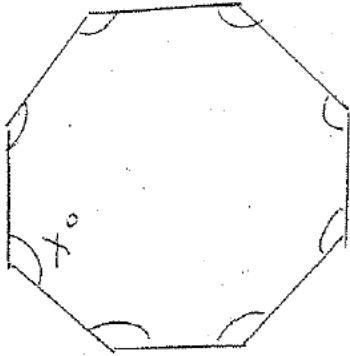


$$x + 75 + 65 + 60 + 120 = 540$$

$$x + 320 = 540$$

$$x = 220$$

4. find x



$$180(n - 2)$$

$$180(9-2)$$

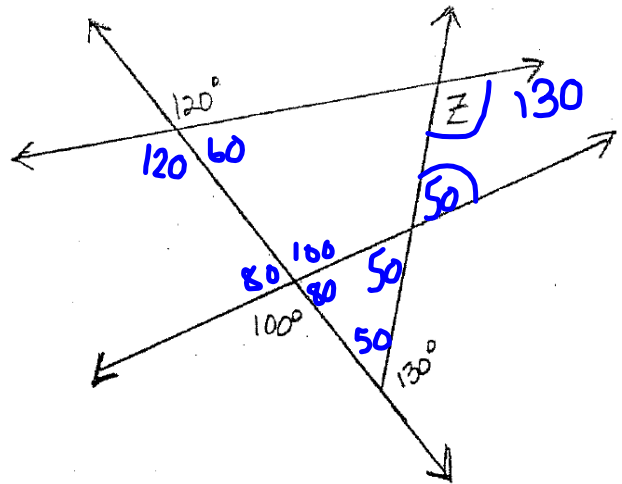
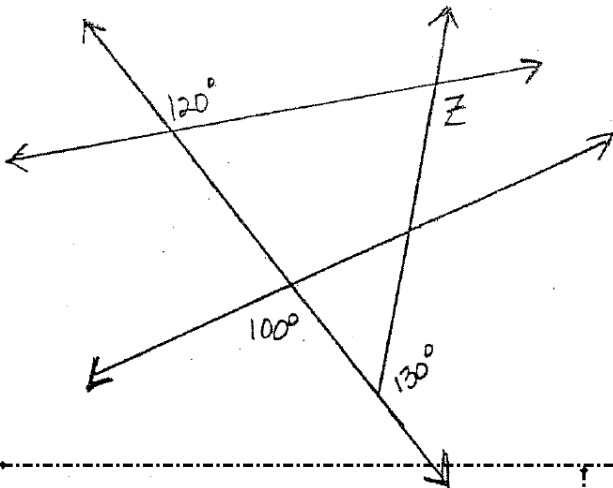
$$1260$$

$$\frac{1260}{9}$$

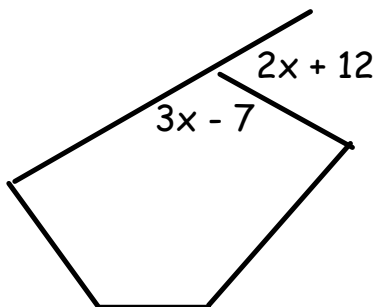
$$140$$

$$x = 140$$

5. find angle z.



6. find x



$$180(n - 2)$$

$$180(5-2)$$

$$\frac{540}{5}$$

$$108$$

$$\text{each} = 108$$

$$3x - 7 = 108$$

$$3x = 115$$

$$x = 38.3$$

7. Find the measure of each exterior angle of a 14-gon

$$\frac{360}{14} = 25.7$$

8. How many sides does a regular polygon with each interior angle measure of 168 have?

$$168 = \frac{180(n-2)}{n}$$

$$168n = 180n - 360$$

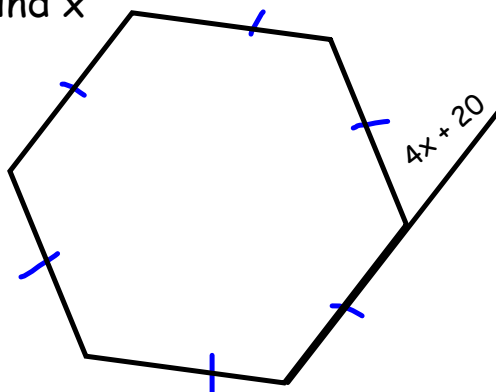
$$-12n = -360$$

$$n = 30$$

9. An exterior angle of a regular polygon is 36. How many sides does it have?

$$\frac{360}{36} = 10 \text{ sides}$$

10. find x



$$4x + 20 = 120$$

$$4x = 100$$

$$x = 25$$