

12.1



# What Do You Call a Boomerang That Doesn't Come Back?

Cross out the letter next to each correct answer. When you finish, the answer to the title question will remain.

A STICK

- 37°
- 47°
- 55°
- 56°
- 58°
- 60°
- 61°
- 64°
- 67°
- 69°
- 77°
- 90°
- 95°
- 103°
- 106°
- 108°
- 109°
- 110°
- 113°
- 115°
- 124°
- 125°
- 127°
- 128°
- 135°
- 144°
- 145°
- 156°
- 540°
- 1080°
- 3240°

Find the sum of the measures of the angles of each polygon.

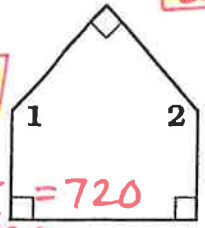
- 1. pentagon  $(5-2)180$   $540^\circ$
- 2. octagon  $(8-2)180$   $1080^\circ$
- 3. 20-gon  $(20-2)180$   $3240^\circ$

- 4. In the diagram of home plate at the right,  $\angle 1 \cong \angle 2$ . Find  $m\angle 1$ .

$$x + x + 90 + 90 + 90 = 540$$

$$2x = 270$$

$$x = 135^\circ$$



- 5. The measures of five angles of a hexagon are  $135^\circ$ ,  $147^\circ$ ,  $103^\circ$ ,  $90^\circ$ , and  $118^\circ$ . Find the measure of the sixth angle.

$$135 + 147 + 103 + 90 + 118 + x = 720$$

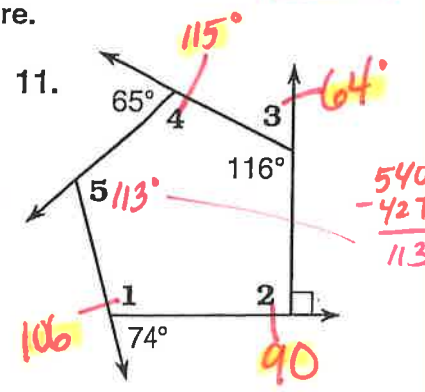
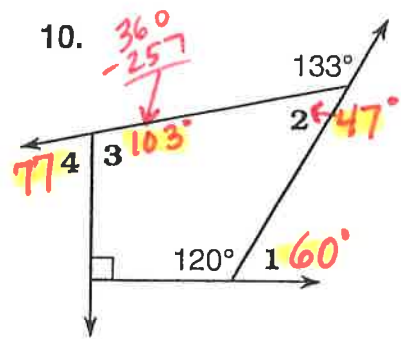
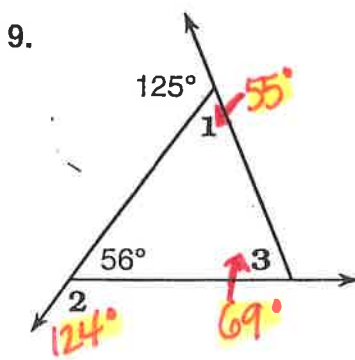
$$593 + x = 720$$

$$x = 127^\circ$$

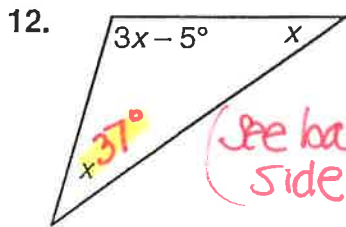
Find the measure of each interior angle of the given regular polygon.

- 6. regular pentagon  $540 \div 5 = 108^\circ$
- 7. regular decagon  $1440 \div 10 = 144^\circ$
- 8. regular 15-gon  $2340 \div 15 = 156^\circ$

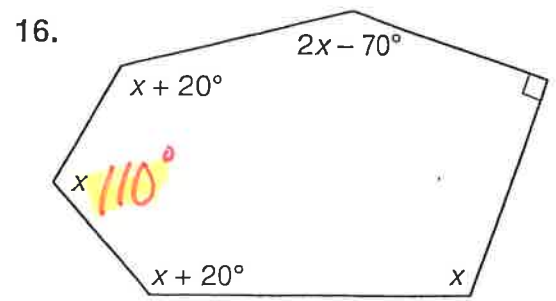
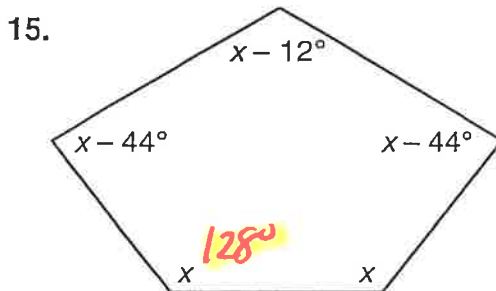
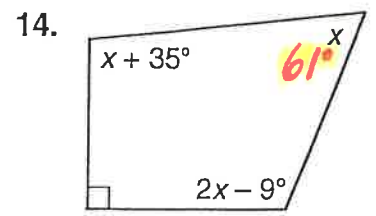
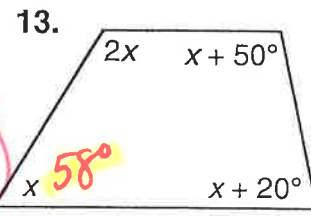
Find the measures of the numbered angles in each figure.



Use an algebraic equation to find the measure of the angle labeled x.



Be back side



$$12) \quad \underline{3x-5} + \underline{x} + \underline{x} = 180$$

$$5x - 5 = 180$$

$$5x = 185$$

$$\boxed{x = 37^\circ}$$

$$13) \quad \underline{x} + \underline{2x} + \underline{x+50} + \underline{x+20} = 360$$

$$5x + 70 = 360$$

$$5x = 290$$

$$\boxed{x = 58^\circ}$$

$$14) \quad \underline{x + 35 + 90} + \underline{2x-9} + \underline{x} = 360$$

$$4x + 116 = 360$$

$$4x = 244$$

$$\boxed{x = 61^\circ}$$

$$15) \quad \underline{x-12} + \underline{x-44} + \underline{x-44} + \underline{x} + \underline{x} = 540$$

$$5x - 100 = 540$$

$$5x = 640$$

$$\boxed{x = 128^\circ}$$

$$16) \quad \underline{x} + \underline{x} + \underline{x+20} + \underline{x+20} + \underline{90} + \underline{2x-70} = 720$$

$$6x + 60 = 720$$

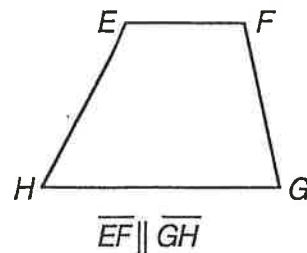
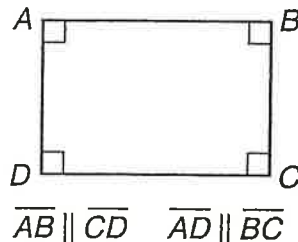
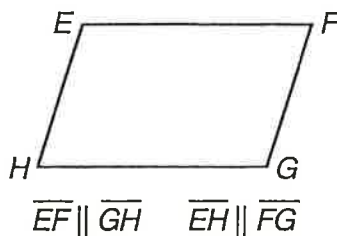
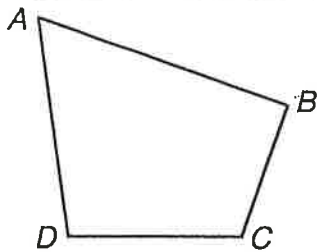
$$6x = 660$$

$$\boxed{x = 110^\circ}$$

# Why Do Airlines Think They Show the Best Movies?



Under each figure, circle the number-letter pair next to each word that correctly names the figure. Write the letter in the matching numbered box at the bottom of the page.

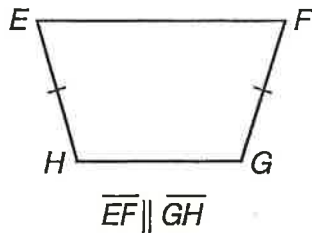
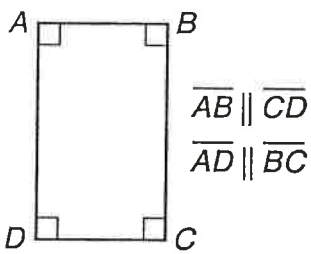
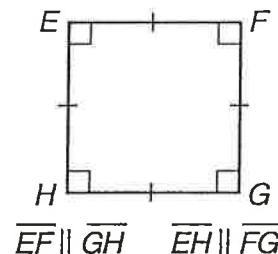
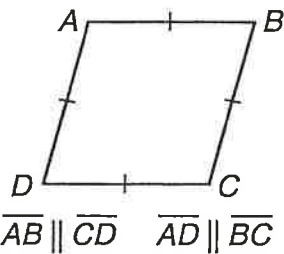


- 11 • F parallelogram
- 26 • H polygon
- 14 • D rectangle
- 32 • C rhombus
- 8 • E quadrilateral

- 2 • W rectangle
- 23 • T trapezoid
- 19 • U parallelogram
- 30 • I quadrilateral
- 4 • M square

- 34 • E polygon
- 6 • P square
- 11 • R parallelogram
- 17 • G rhombus
- 2 • O rectangle

- 27 • U parallelogram
- 14 • A quadrilateral
- 23 • N trapezoid
- 1 • T isosceles trapezoid

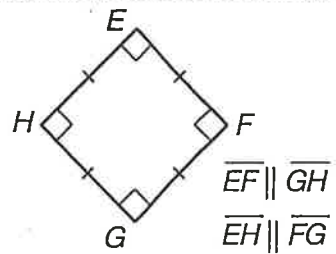
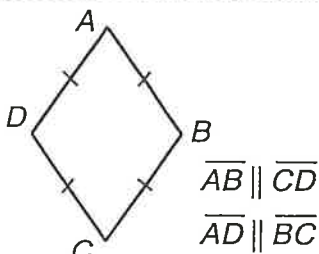
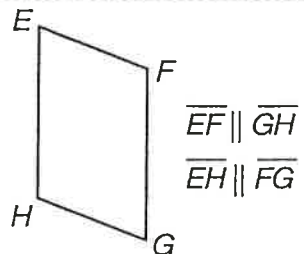
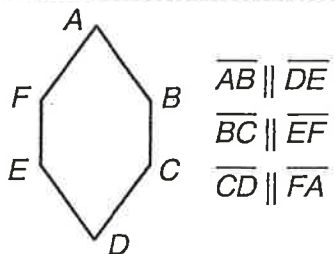


- 22 • A square
- 10 • K rectangle
- 6 • Y rhombus
- 30 • L trapezoid
- 32 • D parallelogram

- 27 • E square
- 4 • O parallelogram
- 31 • R trapezoid
- 22 • I rectangle
- 17 • S rhombus

- 25 • T quadrilateral
- 10 • E parallelogram
- 1 • N rectangle
- 15 • B square
- 5 • L trapezoid

- 20 • F rhombus
- 33 • R parallelogram
- 31 • D trapezoid
- 15 • L isosceles trapezoid



- 26 • X parallelogram
- 34 • J quadrilateral
- 13 • P rectangle
- 29 • S trapezoid
- 5 • D polygon

- 3 • R rectangle
- 20 • T parallelogram
- 16 • D rhombus
- 21 • H trapezoid
- 9 • V polygon

- 33 • L rhombus
- 7 • S square
- 28 • N rectangle
- 13 • W quadrilateral
- 18 • P trapezoid

- 3 • B rectangle
- 18 • O parallelogram
- 29 • M rhombus
- 24 • S trapezoid
- 16 • K square

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
N	O	B	O	D	Y		e	v	e	r		w	a	l	k	s
18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
o	u	t		i	n		t	h	e		m	i	d	d	l	e

