

Section 2.3 Answers to Assigned Even Problems

2 and 4 are diagrams

6. $\angle WXY = 107^\circ$, $\angle XYZ = 54^\circ$, $\angle YZW = 113^\circ$, $\angle ZWX = 86^\circ$. The angle sum should be 360° .

8. a) Yes – the sum of the angle measures is 180°

b) No – the sum of the angle measures is 200°

c) No – the sum of the angle measures is 182°

10. $a = 45^\circ$, $b = 45^\circ$, $c = 65^\circ$, $d = 80^\circ$, $e = 30^\circ$, $f = 70^\circ$, $g = 20^\circ$, $h = 55^\circ$

12. a) 72° b) 82.5° , 97.5° c) 80° d) 110° , 76° , 117° , 57°

14. 21 sides

16. 5940°

18. a) 156° b) 165° c) 171° d) 168.75° e) 165.5 f) 168°

20. a) 12 b) 15 c) 60 d) 18

22. Equilateral triangle, square, regular hexagon, regular octagon, regular 12-gon, regular 24-gon

24.

26. The measure of one vertex angle in a regular octagon is 135° , which is not a factor of 360° .

28. Polygon	V	D	T
Triangle	3	0	0
Quadrilateral	4	1	2
Pentagon	5	2	5
Hexagon	6	3	9
Octagon	8	5	20