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| **Key Concept** | **Notes** |
| Polygon Angle-Sum Theorem |  |
| **Problem 1** | What is the sum of the interior angle measures of a heptagon? |
| **Problem 2** | What is *m*∠*Y* in pentagon *TODAY*?  |
| Types of Polygons |  |
| Corollary to the Polygon Angle-Sum Theorem |  |
| **Problem 3** | What is the measure of each interior angle in a regular hexagon? |
| Polygon Exterior Angle-Sum Theorem |  |
| **Problem 4** | What is measure of an exterior angle of aregular octagon? |

APPLICATION

1. What is the sum of the interior angle measures of a 17-gon?

2. The sum of the interior angles measures of a polygon is 1980. What is the number of sides in the polygon?

3. What is the measure of each interior angle in a regular nonagon?

4. What is *m*∠*G* in quadrilateral *EFGH*?

5. What is measure of an exterior angle of aregular nonagon?

COMPREHENSION

6. Draw an equiangular polygon that is not equilateral.

7. Which angles are exterior angles for ∠1?