

MODULE 15 Proofs with Triangles and Quadrilaterals

LESSON 15-1

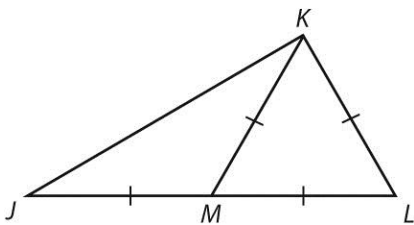
Practice and Problem Solving: A/B

1. 115°
2. 70°
3. 60°
4. 65°
5. 35°
6. 120°
7. 360°
8. right
9. exterior
10. 20, 60, 100
11. 40, 40, 100 or 40, 70, 70

LESSON 15-2

Practice and Problem Solving: A/B

1. 50°
2. 6.3
3. 60°
4. $4\frac{1}{2}$ yd
5. 65°
6. 8
- 7.



30° . \overline{KL} , \overline{LM} , and \overline{MK} are congruent because they are the sides of an equilateral triangle. \overline{MJ} is also congruent to those three sides because M is the midpoint of \overline{JL} . Angle KML is 60° because it is in an equilateral triangle. Angles J and MKJ have the same measure because they are opposite congruent sides in an isosceles triangle. Their sum is 60° , so each one is 30° .

8. It is given that circles B and C are congruent. \overline{AB} is a radius of circle B , \overline{AC} is a radius of circle C , and \overline{BC} is a radius of both circles. All three segments are congruent because the radii of congruent circles are congruent. Therefore $\triangle ABC$ is equilateral by definition because all three of its sides are congruent.
9. 58.1 ft