Lesson 10.2

Challenge Practice

1. 345° **2.** about 37.6 **3.** 55°

4. Let r_1 and r_2 be the radius of circles A and B respectively. Therefore, $r_1^2 = r_2^2$ because A and B are congruent. So, $\pi r_1^2 = \pi r_2^2$. It follows that A and B have the same area.

5. It is given that two circles A and B have the same area. Therefore, $\pi r_1^2 = \pi r_2^2$. Thus $r_1^2 = r_2^2$, and $r_1 = r_2$. Therefore, by definition, A and B are congruent.

6. $m\widehat{DE} = 50°$, $m\widehat{EF} = 130°$, $m\widehat{FG} = 50°$, $m\widehat{GD} = 130°$ **7.** 45°, 135° **8.** 73 **9.** 12 **10.** 13