

Answers

1. yes; Corresponding angles are congruent. Because $\frac{4}{10} = \frac{8}{20}$, the corresponding side lengths are proportional.
2. 16.5
3. $18\frac{2}{3}$
4. $\frac{3}{2}, \frac{9}{4}$
5. $\frac{4}{15}, \frac{16}{225}$
6. yes
7. no
8. 300 in.^2
9. $A''(-3, -1), B''(-1.5, -1),$
 $C''(-1.5, -3.5), D''(-3, -3.5)$
10. no; Corresponding side lengths are not proportional.