

Answer Key

Lesson 4.7

Practice Level C

1. $x = 9, y = 11$ 2. $x = 6, y = 13$ 3. $x = 3.5, y = 9$ 4. $x = 12, y = 5$ 5. $x = 6, y = 7$

6. $x = 3, y = 9.5$ 7. $x = 20.5, y = 6$ 8. $x = 8, y = 3$ 9. $x = 7$, cannot determine y ; could find y if it was given that $9y - 10$ is equal to $5y - 8$.

10. 98 in. 11. 72.5 m 12. 149.25 ft

13. $x = 64.5, y = 25.5, z = 129$ 14. $x = 58, y = 32, z = 32$ 15. $x = 68, y = 40, z = 36$

16. Given; $\overline{BA} \cong \overline{BC}$; Reflexive Property of Congruence; $\overline{BD} \cong \overline{BE}$; $\triangle BDC \cong \triangle BEA$; Corresponding parts of \cong triangles are \cong .

17. $\angle 1 \cong \angle 2$; Converse of Base Angles Theorem; $NL \cong NK$; $\overline{JN} \cong \overline{MN}$; Definition of \cong segments; $JN + NL = MN + NK$; Segment Addition Postulate; $JL = MK$; Definition of \cong segments; $\overline{KL} \cong \overline{KL}$; SAS Congruence Postulate; Corresponding parts of \cong triangles are \cong .