

## Geometry 5.2b Worksheet Answers

1. No – Not enough information
2. Yes – Alternate Interior Angles
3. No – Not enough information
4. Yes – Corresponding Angles
5. No – Not enough information
6. Yes – Alternate Exterior Angles
- 7.

Statements	Reasons
(1) $\overline{ED} \perp \overline{EF}$	(1) Given
(2) $\angle DEF$ is a right angle.	(2) Perp. Lines intersect to form 4 right angles
(3) $m\angle DEF = 90^\circ$	(3) Definition of a right angle
(4) $m\angle 7 + m\angle 8 = m\angle DEF$	(4) Angle Addition Postulate
(5) $m\angle 7 + m\angle 8 = 90^\circ$	(5) Substitution Property of Equality
(6) $\angle 7$ and $\angle 8$ are complementary	(6) Definition of complementary angles

8. It is not known if line  $x$  and  $y$  are perpendicular.
9. Distance needs to be perpendicular, but the angle is  $60^\circ$
10. Yes, the angles are congruent and form a linear pair.
- 11-18. Constructions – Answers may vary