

## 4.2 Day 2 Worksheet Answers

1.  $\angle AGF$
2.  $\angle EGF$
3.  $\angle BGD$  or  $\angle AGE$
4.  $20^\circ$
- 5.

Statements	Reasons
(1) $m\angle 1 = m\angle 4$	(1) Given
(2) $m\angle EHF = m\angle GHF = 90^\circ$	(2) Given
(3) $m\angle EHF = m\angle 1 + m\angle 2$ and $m\angle GHF = m\angle 3 + m\angle 4$	(3) Angle Addition Postulate
(4) $m\angle 1 + m\angle 2 = m\angle 3 + m\angle 4$	(4) Substitution Property of Equality
(5) $m\angle 4 + m\angle 2 = m\angle 3 + m\angle 4$	(5) Substitution Property of Equality
(6) $m\angle 2 = m\angle 3$	(6) Subtraction Property of Equality

6.

Statements	Reasons
(1) $\angle RMP \cong \angle TMS$	(1) Given
(2) $m\angle RMS + m\angle SMP = m\angle RMP,$ $m\angle SMP + m\angle PMT = m\angle TMS$	(2) Angle Addition Postulate
(3) $m\angle RMS + m\angle SMP = m\angle SMP + m\angle PMT$	(3) Substitution Property of Equality
(4) $m\angle RMS = m\angle PMT$	(4) Subtraction Property of Equality
(5) $\angle RMS \cong \angle TMS$	(5) Definition of Congruency

7.  $m\angle PDT = 108^\circ$

8.  $x = 5$

9. A, D, E

10. A and D

11.

- a. A and C
- b. E
- c. B
- d. D