

Answer Key – Chapter 2 Review

Test A

1. false 2. true 3. false
4. true 5. true 6. true
7. false; If two planes intersect, then their intersection is a line. Plane Intersection Postulate (Post. 2.7).
8. true
9. converse: If it is the weekend, then it is Sunday;
inverse: If it is not Sunday, then it is not the weekend.
10. converse: If $\angle A$ is obtuse, then $m\angle A = 95^\circ$;
inverse: If $m\angle A \neq 95^\circ$, then $\angle A$ is not obtuse.
11. converse: If an animal has two eyes, then it is a bird;
inverse: If an animal is not a bird, then it does not have two eyes.
12. inductive reasoning
13. deductive reasoning
14. Points A , B , and C are collinear.
15. You are not going outdoors.
16. If a quadrilateral is a square, then it is a rectangle.
17. If a number ends in 0, then it is divisible by 5.
18. $x = -19$;
- $$\frac{x + 3}{-2} = 8 \quad \text{Given}$$
- $$x + 3 = -16 \quad \text{Multiplication Property of Equality}$$
- $$x = -19 \quad \text{Subtraction Property of Equality}$$
19. $x = -5$;
- $$5x - 3 = 4(x - 2) \quad \text{Given}$$
- $$5x - 3 = 4x - 8 \quad \text{Distributive Property}$$
- $$x - 3 = -8 \quad \text{Subtraction Property of Equality}$$
- $$x = -5 \quad \text{Addition Property of Equality}$$

20. $P = \frac{I}{rt}$; \$25000;

$$I = Prt \quad \text{Given}$$

$$7500 = P(0.05)(6) \quad \text{Substitution Property of Equality}$$

$$7500 = 0.3P \quad \text{Simplify.}$$

$$25,000 = P \quad \text{Division Property of Equality}$$

21. Symmetric Property of Segment Congruence (Thm. 2.1)

22. Reflexive Properties of Equality

23. Transitive Properties of Equality

24. STATEMENTS	REASONS
1. $\angle 1$ and $\angle 2$ are supplementary.	1. Given
2. $m\angle 1 = 135^\circ$	2. Given
3. $m\angle 1 + m\angle 2 = 180^\circ$	3. Definition of supplementary angles
4. $135^\circ + m\angle 2 = 180^\circ$	4. Substitution Property of Equality
5. $m\angle 2 = 45^\circ$	5. Subtraction Property of Equality