Answer Key

Practice B

1. always   **2.** sometimes   **3.** sometimes

4. always   **5.** always   **6.** always   **7.** 32°

8. 86°   **9.** 66°   **10.** 35°   **11.** 16   **12.** 26

13. *Sample answer:* Rectangle; adjacent sides are ⊥ but not ≅.

14. *Sample answer:* Rhombus; adjacent sides are ≅ but not ⊥.

15. *Sample answer:* Rectangle; diagonals are ≅ but not ⊥.

16. *Sample answer:* Square; diagonals are ≅ and ⊥.

17.

Statements	Reasons
1. □*HIJK*	**1.** Given
2. △*HOI* ≅ △*JOI*	**2.** Given
3. $\overline{IH}$ ≅ $\overline{IJ}$	**3.** Corresp. parts of ≅ △'s are ≅.
4. *HIJK* is a rhombus	**4.** A □ with adjacent sides ≅ is a rhombus.

18.

Statements	Reasons
1. Rectangle *RECT*	**1.** Given
2. $\overline{RT}$ ≅ $\overline{EC}$, $\overline{RT} \parallel \overline{EC}$	**2.** Property of Rectangle
3. ∠*ART* ≅ ∠*ACE*	**3.** Alt. Int. ∠ are ≅.
4. ∠*RAT* ≅ ∠*CAE*	**4.** Vertical ∠ are ≅.
5. △*ART* ≅ △*ACE*	**5.** AAS Congruence Thm.