# 10-2 Standardized Test Prep

## Areas of Trapezoids, Rhombuses, and Kites

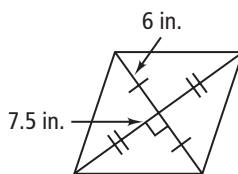## Multiple Choice

**For Exercises 1–6, choose the correct letter.**

**1.** What is the area of a trapezoid with height 5 m and bases 8 m and 1 m?

　Ⓐ $6.5\text{ m}^2$ 　　　Ⓑ $22.5\text{ m}^2$ 　　　Ⓒ $24\text{ m}^2$ 　　　Ⓓ $45\text{ m}^2$

**2.** What is the area of the figure at the right?

　Ⓕ $45\text{ in.}^2$ 　　　Ⓗ $135\text{ in.}^2$

　Ⓖ $90\text{ in.}^2$ 　　　Ⓘ $180\text{ in.}^2$

6 in.
7.5 in.

**3.** What is the area of the kite at the right?

　Ⓐ $30\text{ ft}^2$ 　　　Ⓒ $96\text{ ft}^2$

　Ⓑ $60\text{ ft}^2$ 　　　Ⓓ $120\text{ ft}^2$

6 ft
10 ft
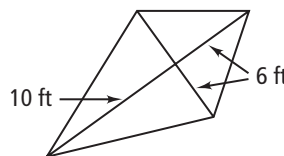
**4.** What is the area of the trapezoid at the right?

　Ⓕ $36\sqrt{3}\text{ cm}^2$ 　　　Ⓗ $65\text{ cm}^2$

　Ⓖ $44\sqrt{3}\text{cm}^2$ 　　　Ⓘ $88\text{ cm}^2$

7 cm
8 cm
4 cm
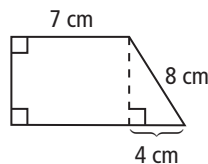
**5.** What is the area of the figure at the right?

　Ⓐ $7.5\text{ m}^2$ 　　　Ⓒ $21.25\text{ m}^2$

　Ⓑ $15\text{ m}^2$ 　　　Ⓓ $42.5\text{ m}^2$

45°
2.5 m
6 m
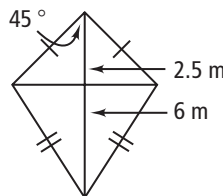
**6.** A trapezoid has an area of $166.5\text{ in.}^2$, height 9 in., and one base 15 in. What is the length of the other base?

　Ⓕ 3.5 in. 　　　Ⓗ 18.5 in.

　Ⓖ 7 in. 　　　Ⓘ 22 in.

## Extended Response

**7.** A trapezoid has two right angles and bases that measure 16 m and 8 m. The right triangle formed by an altitude has a hypotenuse of $4\sqrt{5}$ m. Sketch the trapezoid. What are its perimeter and area? Show your work.