

## **Vocabulary Review**

square root, p. 453 perfect square, p. 454 radical expression, p. 454 simplest form of a radical expression, p. 458 hypotenuse, p. 465 leg, p. 465 Pythagorean theorem, p. 465

irrational number, p. 470 real number, p. 470 midpoint, p. 478 trigonometric ratio, p. 489 tangent, p. 489 sine, p. 494 cosine, p. 494

- In Exercises 1 and 2, copy and complete the statement.
- **1.** A(n) ? of a number *n* is a number *m* such that  $m^2 = n$ .
- **2.** In a right triangle, the <u>?</u> is the side opposite the right angle. The sides that form the right angle are the <u>?</u>.
- **3.** What is the midpoint of a segment?
- **4.** For  $\triangle DEF$  below, write sin *D*, cos *D*, and tan *D* in terms of *d*, *e*, and *f*.



<b>9.1</b> Square R	Roots			Examples on
Goal	Example Find the	e square roots of 2	2500	pp. 453–455 of the text
Find and approximate square roots.	ind and pproximate square roots of 2500 and $(-50)^2 = 2500$ . Therefore, the square roots of 2500 are 50 and $-50$ . <b>Example</b> Approximate $\sqrt{78}$ to the nearest integer.			
	64 < 78 < 81	Identify perfect squares closest to 78. Take positive square root of each number. Evaluate square root of each perfect square.		
	$\sqrt{64} < \sqrt{78} < \sqrt{81}$			
	$8 < \sqrt{78} < 9$			
	<b>Answer</b> Because 78 is closer to 81 than 64, $\sqrt{78}$ is closer to 9 than to 8. So, to the nearest integer, $\sqrt{78} \approx 9$ .			
	<b>5.</b> Find the square roots of 625 and the square roots of 8100.			
	Approximate the square root to the nearest integer.			
<.	<b>6.</b> $\sqrt{18}$	<b>7.</b> $-\sqrt{28}$	<b>8.</b> $-\sqrt{39}$	<b>9.</b> $\sqrt{60}$





