

Name _____

Gillespie

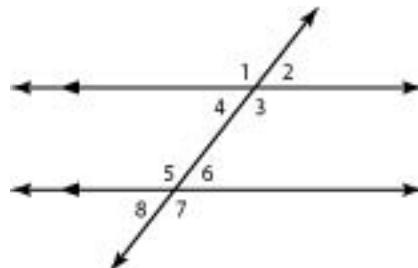
Course 3: Ch5 Test Review Key

Triangles and the Pythagorean Theorem

Directions: When working each of the following questions, be sure to show all work. Be sure to round any decimals to the nearest hundredth.

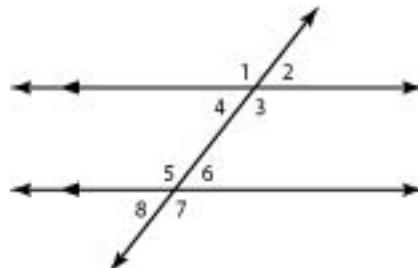
- 1) What is $m\angle 7$ if $m\angle 3 = 120^\circ$?

$$m\angle 7 = 120^\circ$$



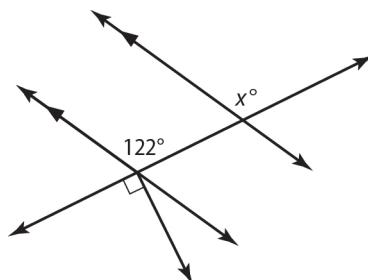
- 2) If $m\angle 6 = 70^\circ$, what is $m\angle 1$?

$$m\angle 1 = 110^\circ$$



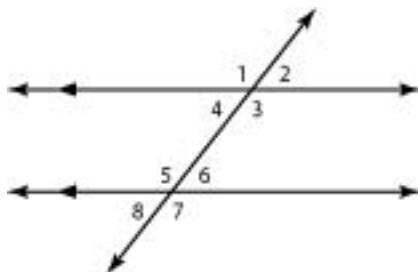
- 3) Determine the value of x in the figure shown below.

$$x = 122^\circ$$



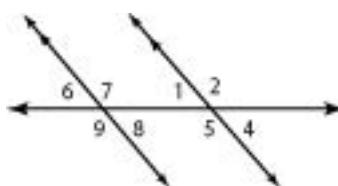
4) In the figure shown, identify one pair of angles that are congruent.

- a) $m\angle 1$ and $m\angle 2$
- b) $m\angle 3$ and $m\angle 4$
- c) $m\angle 6$ and $m\angle 4$
- d) $m\angle 8$ and $m\angle 3$



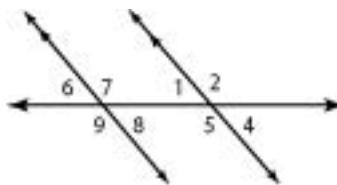
5) What is $m\angle 6$ if $m\angle 1 = 50^\circ$?

50°



6) If $m\angle 7 = 130^\circ$, what is $m\angle 5$?

130°



7) $\angle A$ and $\angle B$ are alternate exterior angles formed by two parallel lines cut by a transversal. Find $m\angle B$ if $m\angle A = 72^\circ$.

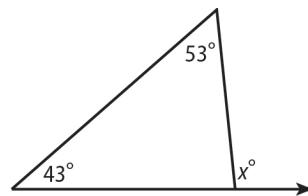
72°

8) A triangle has angles measuring 43° and 67° . What is the measure of the triangle's third angle?

70°

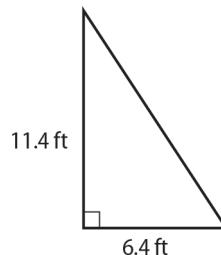
- 9) Determine the value of x in the triangle shown below.

x = 96



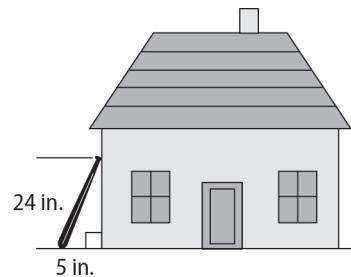
- 10) Determine the length of the hypotenuse in the right triangle shown below. Round to the nearest tenth.

13.1 ft



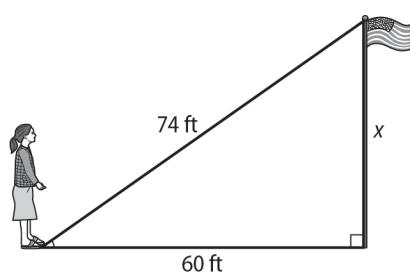
- 11) How far up on the playhouse is the baseball bat resting? Round to the nearest tenth if necessary.

23.5 in.



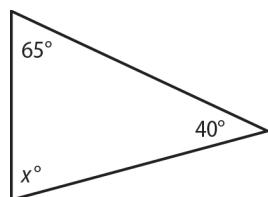
- 12) Determine the height of the flagpole. Round to the nearest tenth if necessary.

43.3 ft



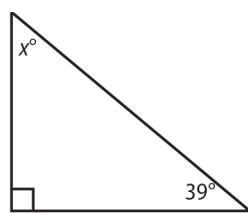
13) Determine the value of x

75°

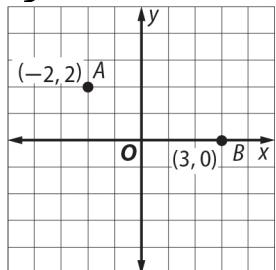


14) Determine the value of x

51°

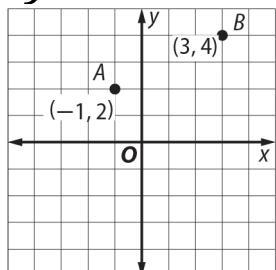


15) Determine the distance between points A and B



5.4 units

16) Determine the distance between points A and B



4.5 units

- 17) One leg of a right triangle measures 6 centimeters, and its hypotenuse has a length of 10 centimeters. Determine the measure of the unknown leg.
(hint: draw a picture)

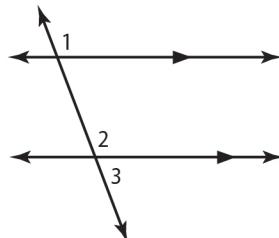
8

- 18) Determine which three measures could be the side measures of a right triangle.

- a) 3, 4, 5
- b) 6, 8, 9
- c) 9, 12, 16
- d) 12, 16, 24

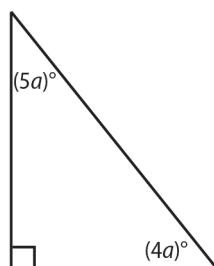
- 19) If $m\angle 1 = (2x + 45)^\circ$ and $m\angle 3 = (3x - 20)^\circ$, what is $m\angle 2$?

$$m\angle 2 = 107^\circ$$



- 20) Determine the value of a in the triangle shown below.

$$a = 10$$



21) Determine the perimeter of a rectangle with diagonal length 15 inches and width 12 inches?

42

					.	
+	0	0	0	0	0	0
-	1	1	1	1	1	1
2	2	2	2	2	2	2
3	3	3	3	3	3	3
4	4	4	4	4	4	4
5	5	5	5	5	5	5
6	6	6	6	6	6	6
7	7	7	7	7	7	7
8	8	8	8	8	8	8
9	9	9	9	9	9	9