Trig Review Ch. 5.1-5.4
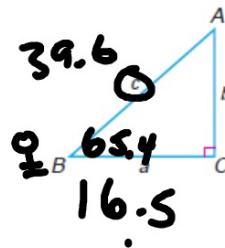
Quiz 5.3-5.4 Mon.

Test 5.1-5.4 Wed.

Lesson 5-4 *(Pages 299–304)*

Solve each problem. Round to the nearest tenth.

1. If $A = 38°$ and $b = 15$, find a.
2. If $c = 19$ and $B = 87°$, find a.
3. If $a = 16.5$ and $B = 65.4°$, find c.
4. If $B = 42° 30'$ and $b = 12$, find a.
5. If $B = 75°$ and $c = 5.8$, find b.
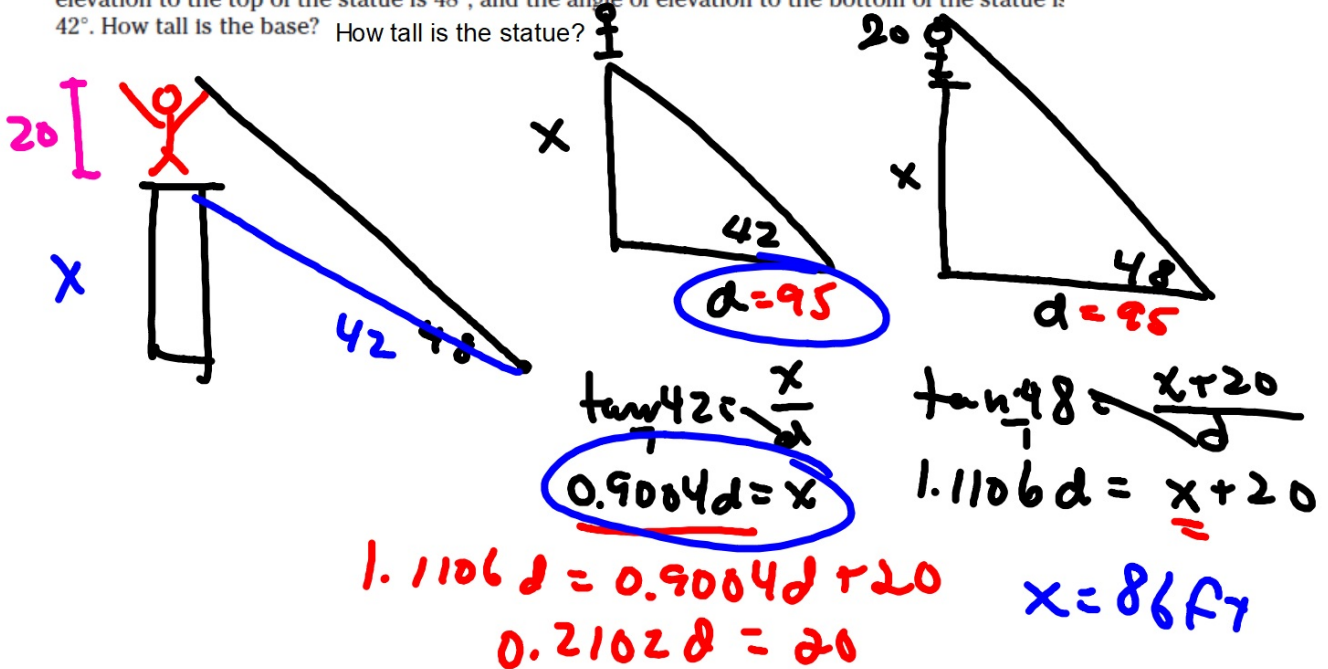
39.6

65.4

16.5

$$\cos 65.4 = \frac{16.5}{c}$$
$$\frac{1}{}$$

$$c(.4163) = 16.5$$

A golden statue of Mrs. Kroon...

6. A statue 20 feet high stands on top of a base. From a point in front of the statue, the angle of elevation to the top of the statue is 48°, and the angle of elevation to the bottom of the statue is 42°. How tall is the base? How tall is the statue?

20

x

x

42 48

42

x

d=95

$\tan 42 = \dfrac{x}{d}$

0.9004d = x

1.1106 d = 0.9004d + 20

0.2102 d = 20

20

x

48

d = 95

$\tan 48 = \dfrac{x+20}{d}$
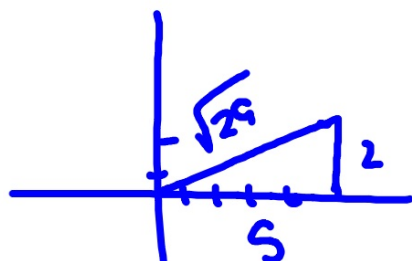
1.1106 d = x + 20

x = 86 ft

Find the values of the six trigonometric functions for angle θ in standard position if a point with the given coordinates lies on its terminal side.

3. $(-1, -2)$ **4.** $(-2, 2)$ **5.** $(5, 2)$ **6.** $(-4, 3)$

$$\sin\theta = \frac{2\sqrt{29}}{\sqrt{29}\sqrt{29}} = \frac{2\sqrt{29}}{29} \quad \csc\theta = \frac{\sqrt{29}}{2}$$

$$\cos\theta = \frac{5}{\sqrt{29}} = \frac{5\sqrt{29}}{29} \quad \sec\theta = \frac{\sqrt{29}}{5}$$

$$\tan\theta = \frac{2}{5} \quad \cot\theta = \frac{5}{2}$$

$$5^2 + 2^2 = h^2$$
$$25 + 4 =$$

Lesson 5-1 *(Pages 277–283)*

Change each measure to degrees, minutes, and seconds.

1. 13.75°

2. 75.72°

3. −29.44°

handwritten notes:

1 min = 60 sec
1 deg = 60 min

13.75° → 60

13° 45' 0"

−29.44° → 60   .4·60

−29° 26' 24"

25.8
26"

Write each measure as a decimal to the nearest thousandth.

5. 144° 12′ 30″

6. −38° 15′ 10″

7. −107° 12′ 45″

60

12.5′

144.208°

Find the measure of the reference angle for each angle.

13. 126°   14. −480°   15. 642°
                      240

90

180

240   270

0

60
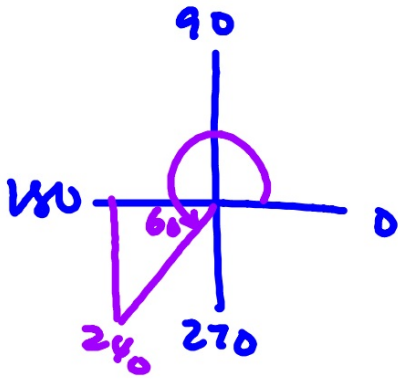
Find the values of the six trigonometric functions for each ∠A.

3.

A

14 m

B   16 m   C

169

3 ^ 53

(4.)

25 ft   28 ft

C √159 B

?
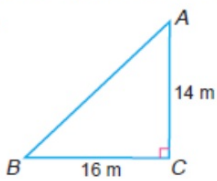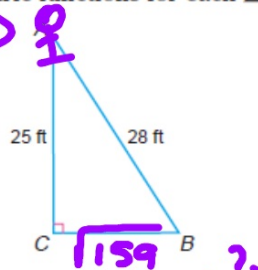
$25^2 + x^2 = 28$

$x = \sqrt{159}$

$\sin A = \dfrac{\sqrt{159}}{28}$

$\cos A = \dfrac{25}{28}$

$\tan A = \dfrac{\sqrt{159}}{25}$

$\csc A = \dfrac{28\sqrt{159}}{159}$

$\sec A = \dfrac{28}{25}$

$\cot A = \dfrac{25\sqrt{159}}{159}$

SGR p. 336
11-39