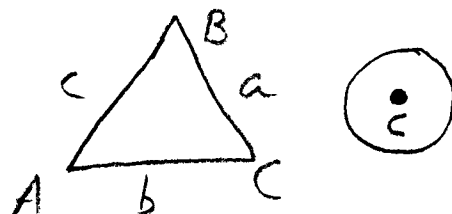


BE - Geometry 1 | WEDNESDAY 1-19-11

From memory, state:



- ① 1 formula for the area of $\triangle ABC$
- ② 1 formula for the area of $\odot c$
- ③ The Law of Sines (LOS)
- ④ Two $\triangle$'s you would use the LOS to solve.
- ⑤ 1 formula for the Law of Cosines (LOC)
- ⑥ Two $\triangle$'s you would use the LOC to solve.
- ⑦ The Quadratic Equation in STANDARD Form.
- ⑧ The Quadratic Formula
- ⑨ 1 formula for the circumference of $\odot c$
- ⑩ The Pythagorean Identity
- ⑪ The 3 Reciprocal Identities

Geometry 1 - Homework Review

Verify Trig. Identities

$$\begin{array}{lcl} \textcircled{1} & \csc \theta & = \cot \theta \sec \theta \\ & & \frac{\cos \theta}{\sin \theta} \cdot \frac{1}{\cos \theta} \\ & & \frac{1}{\sin \theta} \\ & \csc \theta & = \csc \theta \quad \checkmark \end{array}$$

$$\begin{array}{lcl} \textcircled{2} & \sec \theta - \cos \theta & = \tan \theta \sin \theta \\ & & \frac{\sin \theta}{\cos \theta} \cdot \sin \theta \\ & & \frac{\sin^2 \theta}{\cos \theta} \\ & & \downarrow \\ & & \frac{1 - \cos^2 \theta}{\cos \theta} \\ & & \left\{ \begin{array}{l} \sin^2 \theta + \cos^2 \theta = 1 \\ \sin^2 \theta = 1 - \cos^2 \theta \end{array} \right. \\ & & \frac{1}{\cos \theta} - \frac{\cos^2 \theta}{\cos \theta} \\ & \sec \theta - \cos \theta & = \sec \theta - \cos \theta \quad \checkmark \end{array}$$

$$\textcircled{3} \quad \cos \theta = \sec \theta - \tan \theta \sin \theta$$

$$\frac{1}{\cos \theta} - \frac{\sin \theta}{\cos \theta} \cdot \sin \theta$$

$$\frac{1}{\cos \theta} - \frac{\sin^2 \theta}{\cos \theta}$$

$$\frac{1 - \sin^2 \theta}{\cos \theta}$$

$$\begin{cases} \sin^2 \theta + \cos^2 \theta = 1 \\ \cos^2 \theta = 1 - \sin^2 \theta \end{cases}$$

$$\frac{\cos^2 \theta}{\cos \theta}$$

$$\cos \theta$$

$$\cos \theta$$



$$\textcircled{4} \quad \cos^2 X - \sin^2 X = 2 \cos^2 X - 1$$

$$\cos^2 X - [1 - \cos^2 X]$$

$$\cos^2 X - 1 + \cos^2 X$$

$$2 \cos^2 X - 1$$

$$2 \cos^2 X - 1$$



Pg 526 # 21-27, 44, 46, 52

(21) $\odot R$ or circle R (22) $r = \overline{RX}$ or $\overline{RZ}$
more

(23) chord = $\overline{ZV}$, $\overline{TX}$ or $\overline{WZ}$

(24) dia = $\overline{TX}$, $\overline{WZ}$ (25) r NOT IN dia $\Rightarrow \overline{RU}$, $\overline{RV}$

(26) $r = 2$, $d = 4$ ++ (27) $d = 5$ $r = \frac{5}{2}$ ++

NEAREST HUNDREDTH

(44) $r = 7$ mm, $d = ?$, $C = ?$ $d = 14$ mm

$$C = 2\pi r = 14\pi \approx 43.982 \approx 43.98 \text{ mm}$$

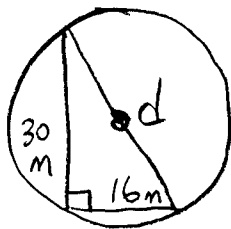
(46) $C = 26\pi$ mi. $d = ?$ $r = ?$

$$C = \pi d \therefore \frac{26\pi}{\pi} = \frac{\pi d}{\pi}$$

$$d = 26 \text{ mi}$$

$$r = 13 \text{ mi}$$

(52)



EXACT C $C = \pi d$

$$d^2 = 30^2 + 16^2 = 900 + 256$$

$$d^2 = 1156 \therefore d = 34 \text{ m}$$

$$\therefore C = \pi \cdot 34$$

$$C = 34\pi \text{ m}$$