review

November-12-13
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1. Find @ principal
   (b) related acute
   (c) two coterminal angles

   i) $570°$

   ii) $-315°$

2. Angle θ is such that $0° \leq \theta \leq 360°$. Given the trigonometric ratio $\cos\theta = -\frac{1}{4}$

   a. determine the exact values of x, y, and r
   b. determine two possible answers for angle θ to the nearest degree

3. Find an equivalent expression to $\sin 150°$

   a) using an angle in quadrant I
   b) using an angle in quadrant IV
   c) explain the MEANING of what $\sin 150°$ represents on unit circle

4. Find exact value (no calc)

$$\frac{3\cot 270° - \sec 210° \sin 120°}{\sin 450° - 2\cos 315°}$$

5. Find @ 6 trig ratios (b) Find θ in 1st pos. rev. c) if pt P is in III find two possible coordinates for it.

$\csc\theta = -\frac{13}{5}$

6. Solve

@ $\sin\theta = -\frac{\sqrt{3}}{2}$

(b) $\cot\theta = -\sqrt{3}$

(c) $2\cos\theta + \sqrt{2} = 0$

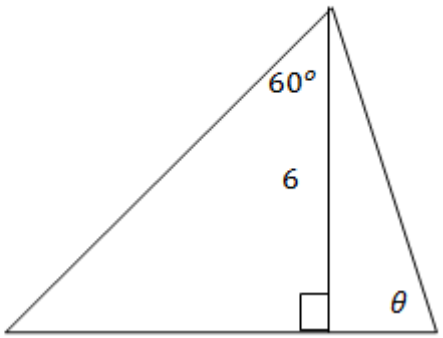
7) Prove

(a) $\dfrac{\sec^2\theta - \tan^2\theta}{\sec^2\theta} = \cos^2\theta$

(b) $(\sec x - \cos x)(\csc x - \sin x) = \dfrac{\tan x}{1+\tan^2 x}$

8) Determine the exact area of the triangle (diagram is not drawn to scale)

$\tan\theta = 1$



9) A square-based pyramid has a height of 182 m and a base length of 280 m. Find the angle, to the nearest degree, that one of the edges of the pyramid makes with the base. Round your answer to the nearest degree.