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Quiz 8

This quiz is graded out of 10 marks. No books, calculators, notes or cell phones are allowed. You must show all your work, the correct answer is worth 1 mark the remaining marks are given for the work. If you need more space for your answer use the back of the page.

Question 1. pg.150#10b (3 marks) What angle θ ($0^\circ \leq \theta < 360^\circ$) is co-terminal to 1140° .

$$\begin{aligned} \theta_1 &= \theta_2 + k \cdot 360^\circ \\ 1140^\circ &= \theta_2 + 3 \cdot 360^\circ \\ 60^\circ &= \theta_2 \end{aligned}$$

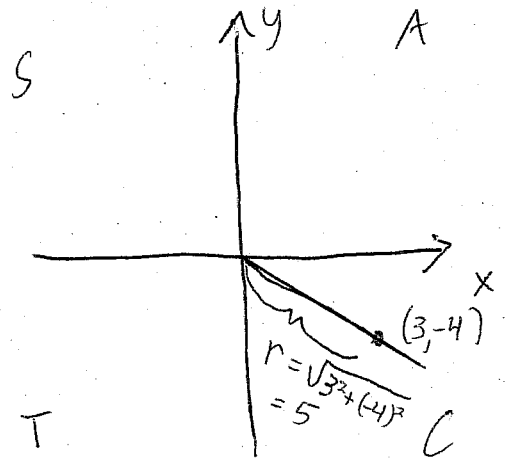
$$k = \left\lfloor \frac{1140}{360} \right\rfloor = \left\lfloor 3.1\bar{6} \right\rfloor = 3$$

Question 2. pg.153#4b (5 marks) Find the values of the other trigonometric functions, if: $\cot \theta = -\frac{3}{4}$ and $\cos \theta > 0$.

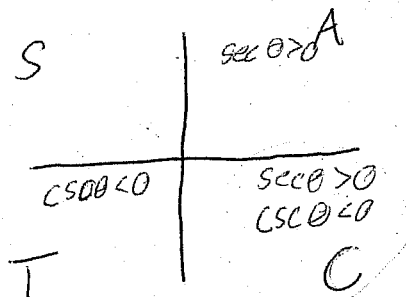
$$\cot \theta = \frac{x}{y} = \frac{3}{-4} \quad \tan \theta = \frac{-4}{3}$$

$$\sin \theta = \frac{y}{r} = \frac{-4}{5} \quad \csc \theta = \frac{5}{-4}$$

$$\cos \theta = \frac{x}{r} = \frac{3}{5} \quad \sec \theta = \frac{5}{3}$$



Question 4. pg.153#3e (2 marks) $\csc \theta < 0$ and $\sec \theta > 0$.



∴ 4th quadrant