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GRADE 10 · TRIGONOMETRY

Trig Ratios for Any Angle: CAST & Reference Angles (Grade 10)

WORKSHEET

Name: ..... Class: .....

Date: .....

MARK ____ / 29

Answer all questions. Show all your working — marks are awarded for method as well as the final answer.

1 Write down the quadrant in which $235°$ lies, and state which of sin, cos and tan is positive there. **(2)**

2 Determine the reference angle for $\theta = 295°$. **(2)**

3 Evaluate $\cos 150°$ without using a calculator. **(3)**

4 Evaluate $\tan 225°$ without using a calculator. **(3)**

5 P$(-8\ ;\ -6)$ lies on the arm of θ. Determine $\sin\theta$, $\cos\theta$ and $\tan\theta$. **(4)**

6 If $\cos\theta = \frac{8}{17}$ and $\sin\theta < 0$, determine $\sin\theta$ and $\tan\theta$. **(4)**

7 Write down the value of cosec $30°$. **(2)**

8 Explain why sec $90°$ is undefined. **(2)**

9 Evaluate cosec $210°$ without using a calculator. **(3)**

10 Without using a calculator, show that $\sin 150° + \cos 300° = 1$. **(4)**

TOTAL: 29 marks

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