



Additional Math with Ali Hashir

Trigonometric Ratios & General Angles

Worksheet 1 — Answers

Q1. $\theta = 250^\circ$ lies in Quadrant III; $\sin \theta < 0$, $\cos \theta < 0$, $\tan \theta > 0$.

Q2. $\sin A = \frac{24}{25}$, $\tan A = \frac{24}{7}$, $\csc A = \frac{25}{24}$, $\sec A = \frac{25}{7}$, $\cot A = \frac{7}{24}$.

Q3. $\theta = 60^\circ$, 300° .

Q4. $\theta = 60^\circ$, -60° .

Q5. $\sin \theta = \frac{4}{5}$, $\cos \theta = -\frac{3}{5}$.

Q6. $\theta = 71.6^\circ$.

Q7. $x = 31.0^\circ$, 211.0° .

Q8. $\theta = 60^\circ$, 120° , 240° , 300° .

Q9. $\theta = 90^\circ$, 210° , 330° .

Q10. $\theta = 225^\circ$; $\cot \theta = 1$.

Q11. $x = 60^\circ$, 180° , 300° .

Q12. $\sin \theta = -\frac{\sqrt{3}}{2}$, $\tan \theta = \sqrt{3}$, $\cot \theta = \frac{\sqrt{3}}{3}$, $\sec \theta = -2$, $\csc \theta = -\frac{2\sqrt{3}}{3}$.

Q13. $\theta = 26.6^\circ$, 135° , 206.6° , 315° .

Q14. $\theta = 15^\circ$, 75° , 135° .

Q15. $\tan A + \tan B = \frac{33}{20}$.

Challenge 1. $\cos \theta = -\sqrt{1-k^2}$, $\tan \theta = -\frac{k}{\sqrt{1-k^2}}$.

Challenge 2. $x = 0^\circ$, 30° , 150° , 180° , 360° .