| National 5 Final Exam Practice | |
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| Trigonometric Skills | Working with Trigonometric Relationships |
| Average Score | 2/3 Marks |

1. Solve $5\sin x^\circ + 3 = 0$ for $0^\circ \leq x \leq 360^\circ$

2. Solve $2\tan x^\circ - 3 = 0$ for $0^\circ \leq x \leq 360^\circ$

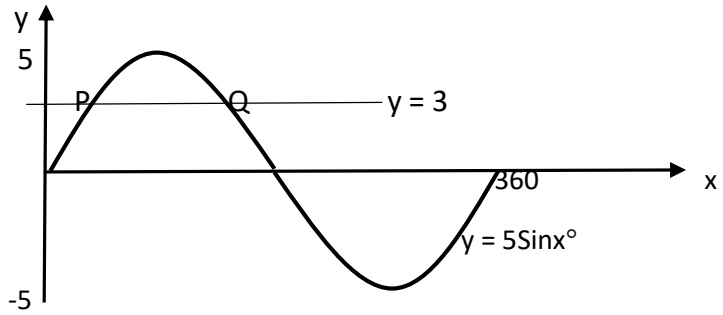
3. Which of these values are negative? Tan 300° Cos 120° Sin 170° Tan 40° Cos 250°

4. Solve $3\cos x^\circ - 1 = 0$ for $0^\circ \leq x \leq 360^\circ$

5. Find the smallest value for which $4\cos x^\circ + 2 = 0$

6. Solve $3 - \cos x^\circ = \cos x^\circ$ for $0^\circ \leq x \leq 360^\circ$

7. The line y = 3 cuts the graph $y = 5\sin x^\circ$ at the points P and Q. Find the coordinates of P and Q.




8. Which of these values are positive? Tan120° Cos 240° Sin320° Cos 210° Tan265°

9. The time of a high tide in a harbour is given by the equation $h = 12\sin 30t^\circ$ where h is the height in metres and t is the hours after midday.
What will be the height at 5pm?

10. Given that $\tan 60^\circ = \sqrt{3}$, write down that value of $2\tan 300^\circ$.

11. The graph of $y = 4\cos x^\circ - 3$ is shown below. Find the coordinates of the points where it cuts both axes.