Solving Trigonometric Equations

$y = sin x$



Use these graphs to help you answer the questions below.

Consider:

* Periods
* Rotational symmetry
* Reflective symmetry

Give your answers correct to one decimal place.

$y = cos x$



$y = tan x$



|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Q | Equation | Domain | Working | Solutions |
| 1 | $\cos(x)=1$  | $0° \leq x \leq 360°$  |  |  |
| 2 | $\sin(θ)=-1$  | $0° \leq θ \leq 360°$  |  |  |
| 3 | $\tan(x)=0$  | $0° \leq x \leq 360°$  |  |  |
| 4 | $\tan(x)=0.2$  | $0° \leq x \leq 720°$  |  |  |
| 5 | $\cos(θ)=0.6$  | $0° \leq θ \leq 360°$  |  |  |
| 6 | $\sin(θ)=0.15$  | $-360° \leq θ \leq 360°$  |  |  |
| 7 | $\tan(θ)=-0.76$  | $0° \leq θ \leq 360°$  |  |  |
| 8 | $\sin(x)=-0.1$  | $0° \leq x \leq 540°$  |  |  |
| 9 | $\cos(x)=-0.43$  | $-180° \leq x \leq 360°$  |  |  |
| 10 | $\sin(θ)=0.68$  | $0° \leq θ \leq 720°$  |  |  |