



1. x° is an **obtuse** angle and $\sin x^\circ = 0.43$.
Find the value of x . [2]
0580/22/O/N/18 Q12)

2. $\sin x = \cos 40^\circ$, $0^\circ \leq x \leq 180^\circ$
Find the two values of x . [2]
0580/43/M/J/14 Q3(c)



3. $\sin x = \sqrt{3}/2$ for values of x between 0° and 360°

0580 syllabus for 2020, 2021 and 2022.

4. Solve $4\sin x - 1 = 2$ for $0^\circ \leq x \leq 360^\circ$. [3]

0580/41/M/J/20 Q8 (b)

5. Solve the equation $4\cos x + 2 = 3$
for $0^\circ \leq x \leq 360^\circ$. [3]

0580/22/F/M/20 Q19 (b)

6. Solve the equation $3\cos x = 1$
for $0^\circ \leq x \leq 360^\circ$. Give your answers
correct to 1 decimal place. [4]

0580/04/SP/20 Q8 (a)



7. Given that $0 \leq x \leq 360$. Solve the following equations.

(i) $7\sin x + 2 = 0$ [2]

(ii) $\cos x = 1/2$ [2]

(iii) $\tan x = -\sqrt{3}$ [2]

(iv) $\tan x = 2$ [2]

(v) $3\tan x = -4$ [3]

(vi) $4\sin x - 1 = 2$ [3]

(vii) $5\tan x = -7$ [3]

(viii) $3\sin x + 1 = 0$ [3]

(ix) $\cos x = -1/2$ [2]

(x) $3 - 2\sin x = \frac{13}{4}$ [3]

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8. (i) Solve the simultaneous equations. [1]

$$\begin{aligned}2p + q &= 2 \\ p - q &= -\frac{1}{2}\end{aligned}$$

(ii) Hence, for $0^\circ \leq u \leq 360^\circ$ and $0^\circ \leq v \leq 360^\circ$,
solve the simultaneous equations. [4]

$$\begin{aligned}2\sin u + \cos v &= 2 \\ \sin u - \cos v &= -\frac{1}{2}\end{aligned}$$

0580/41/M/J/22 Q3)

Answers

1) 154.5
2) 50 , 130
3) 60° and 120°
4) 48.6 and 131.4
5) 75.5 and 284.4 to 284.5
6) 70.5 and 289.5
7) (i) 196.6 & 343.4 (ii) 60 & 300 (iii) 120 & 300 (iv) 63.4 & 243.4 (v) 126.9 & 306.9 (vi) 48.6 & 131.4 (vii) 125.5 & 305.5 (viii) 199.4 & 340.5 (ix) 120 & 240 (x) 187.2 & 352.8
8) (i) $p = \frac{1}{2}$ and $q = 1$ (c) (ii) $u = 30, 150$ and $v = 0, 360$