Solutions

3. Evaluate with a calculator. Record your answer to four decimal places.

a) $\tan 65°$ a) = 2.1445

b) $\tan 15°$ b) = 0.2679

c) $\tan 62°$ c) = 1.8807

d) $\tan 5°$ d) = 0.0875

e) $\tan 30.7°$ e) = 0.5938

f) $\tan 82.4°$ f) = 7.4947

g) $\tan 20.5°$ g) = 0.3739

h) $\tan 45°$ h) = 1.0000

Recall:

Not all scientific calculators work the same way. With some, you press

[TAN] **25** [=]

With others, you press

25 [TAN]

On a graphing calculator, press

[TAN] **25** [ )] [=]

Make sure your calculator is in degree mode.

Obviously, TAN could be SIN or COS depending upon the information given in the question.

4. Find the measure of each angle, to the nearest degree.

a) $\tan \theta = 1.5$ a) θ = 56⁰

b) $\tan A = \frac{3}{4}$ b) A = 37⁰

c) $\tan B = 0.6000$ c) B = 31⁰

d) $\tan W = \frac{4}{5}$ d) W = 39⁰

e) $\tan C = 0.8333$ e) C = 40⁰

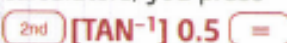f) $\tan \theta = \frac{6}{7}$ f) θ = 41⁰

g) $\tan X = 3.0250$ g) X = 72⁰

h) $\tan \theta = \frac{15}{9}$ h) θ = 59⁰

Recall: With some scientific calculators, you press

(2nd) [TAN⁻¹] 0.5 (=)

With others, you press

0.5 (2nd) [TAN⁻¹]

Obviously, TAN could be SIN or COS depending upon the information given in the question.

If you are given a fraction, put the fraction in brackets. Some calculators will look to do this automatically.

So to find the answer for (b) ⟶ 2nd TAN (3 ÷ 4) =

3. Evaluate each of the following with a calculator, rounded to four decimal places.

a) $\sin 35°$ a) = 0.5736

c) $\sin 60°$ c) = 0.8660

e) $\sin 25°$ e) = 0.4226

g) $\sin 89°$ g) = 0.9998

4. Evaluate each of the following with a calculator, rounded to four decimal places.

a) $\cos 80.2°$ a) = 0.1702

c) $\cos 30°$ c) = 0.8660

e) $\cos 89°$ e) = 0.0175

g) $\cos 5°$ g) = 0.9962

6. Find the measure of each angle, to the nearest degree.

a) $\sin \theta = 0.8933$

c) $\sin P = \dfrac{1}{2}$

e) $\sin \theta = \dfrac{3}{4}$

g) $\sin \theta = 0.7123$

i) $\sin X = 0.3035$

k) $\sin V = \dfrac{1}{8}$

a) $\theta = 63°$

c) $P = 30°$

e) $\theta = 49°$

g) $\theta = 45°$

i) $X = 18°$

k) $V = 7°$

7. Find the measure of each angle, to the nearest degree.

a) $\cos \theta = 0.4481$

c) $\cos C = \dfrac{5}{11}$

e) $\cos Q = 0.8871$

g) $\cos \theta = \dfrac{1}{6}$

i) $\cos B = \dfrac{15}{16}$

k) $\cos \theta = 0$

a) $\theta = 63°$

c) $C = 63°$

e) $Q = 27°$

g) $\theta = 80°$

i) $B = 20°$

k) $\theta = 90°$