Basic Maths

DPP-01

1. Find the value of hypotenuses:

(right triangle with H, $P = 3m$, $B = 4m$, angle θ)
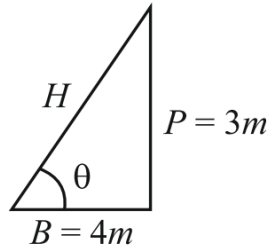
(1) 6 m (2) 1 m
(3) 5 m (4) 7 m

2. Convert angle from radian to degree $\dfrac{\pi}{2}$ rad:

(1) 60° (2) 30°
(3) 90° (4) 0°

3. Convert angle from radian to degree $\dfrac{\pi}{3}$ rad:

(1) 60° (2) 30°
(3) 45° (4) 0°

4. Convert angle from radian to degree $\dfrac{5\pi}{6}$ rad.

(1) 60° (2) 30°
(3) 90° (4) 150°

5. Convert angle from radian to degree $\dfrac{4\pi}{3}$ rad:

(1) 120° (2) 240°
(3) 150° (4) 0°

6. Convert angle from degree to radian 30° to:

(1) $\dfrac{\pi}{2}$ (2) $\dfrac{\pi}{4}$

(3) $\dfrac{\pi}{6}$ (4) $\dfrac{\pi}{3}$

7. Convert angle from degree to radian 90°:

(1) $\dfrac{\pi}{2}$ (2) $\dfrac{\pi}{3}$

(3) $\dfrac{\pi}{6}$ (4) $\dfrac{\pi}{4}$

8. Convert angle from degree to radian 150°:

(1) $\dfrac{\pi}{6}$ (2) $\dfrac{\pi}{4}$

(3) $\dfrac{5\pi}{6}$ (4) 8π

9. If $\tan\theta = \dfrac{4}{3}$. Find the value of $\sin\theta$

(1) $\dfrac{3}{5}$ (2) $\dfrac{4}{3}$

(3) $\dfrac{4}{5}$ (4) $\dfrac{5}{4}$

10. If $\cos\theta = \dfrac{4}{5}$ then find the value of $\tan\theta$

(1) $\dfrac{4}{5}$ (2) $\dfrac{3}{5}$
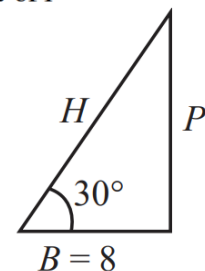
(3) $\dfrac{4}{3}$ (4) $\dfrac{3}{4}$

11. Find the value of $\sin(90 + \theta)$
(1) $\sin\theta$ (2) $-\sin\theta$
(3) $\cos\theta$ (4) $-\cos\theta$

12. Minimum value of $\cos\theta$ for $-\pi \le \theta \le \pi$
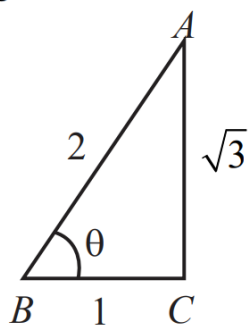(1) -1 (2) $+1$
(3) 0 (4) $\dfrac{1}{2}$

13. Find the value of P

(right triangle with H, P, angle 30°, $B = 8$)

(1) $\dfrac{\sqrt{3}}{8}$ (2) 8

(3) $\dfrac{8}{\sqrt{3}}$ (4) 0

14. Find the angle $\angle ABC$

(1)   0°   (2)   60°
(3)   30°   (4)   45°

15. If θ is very small then find H.
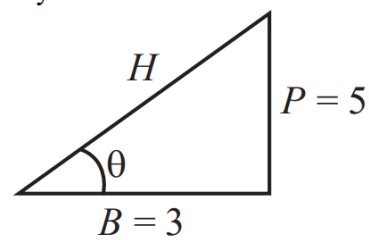
(1)   3   (2) $\dfrac{3}{5}$

(3) $\dfrac{4}{5}$ (4)   5

ANSWER KEY

1.	(3)		9.	(3)
2.	(3)		10.	(4)
3.	(1)		11.	(3)
4.	(4)		12.	(1)
5.	(2)		13.	(3)
6.	(3)		14.	(2)
7.	(1)		15.	(1)
8.	(3)			