

$$1) \frac{25}{18} = \frac{x}{x} \Rightarrow x = \frac{25\pi}{18} = \frac{5\pi}{4} \checkmark$$

$$2) \frac{125}{18} = \frac{x}{x} \Rightarrow x = \frac{125\pi}{18} = \frac{125\pi}{18} \checkmark$$

$$3) \frac{5x}{12} = \frac{x}{18} \Rightarrow x = \frac{18 \cdot 5}{12} = 7.5 \checkmark$$

$$4) \frac{5x}{12} = \frac{x}{18} \Rightarrow x = \frac{18 \cdot 5}{12} = 7.5 \checkmark$$

$$\frac{a\pi}{18} = \frac{D}{18} \Rightarrow \frac{18a}{18} = D \quad \frac{125a}{9 \times 18} = \frac{D}{18} \Rightarrow \frac{125a}{9 \times 18} = 12.5a$$

$$= 12.5a \checkmark$$

$$10a + 12.5a + 12.5a = 18$$

$$\Rightarrow 35a = 18 \Rightarrow a = \frac{18}{35} \checkmark$$

$$5) \frac{1}{x} \times \frac{1}{x} = \frac{1}{x} \times \frac{1}{x} = 1 + 1 = 2 \checkmark$$

$$6) \frac{1}{\sqrt{3} + 1 + \sqrt{3}} = \frac{1}{2\sqrt{3}} = \frac{1}{2\sqrt{3}} \times \frac{\sqrt{3}}{\sqrt{3}} = \frac{1\sqrt{3}}{6} \checkmark$$

$$\sin(4. \text{ c. }) = \sin 40 \cos 40 - \cos 40 \sin 40 \Rightarrow \sin 40 = \sin 40$$

$$\sin^2 \theta = \frac{1}{2} \Rightarrow \frac{1}{\sin^2 \theta} = 1 + \tan^2 \theta \Rightarrow 2 = 1 + \tan^2 \theta \Rightarrow \tan^2 \theta = 1$$

$$\Rightarrow \tan \theta = \pm 1 \Rightarrow \tan \theta = \pm 1 \checkmark$$

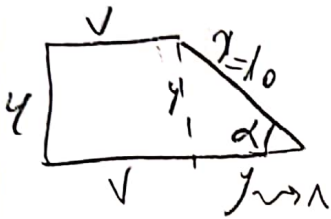
$$\tan^2 \theta (1 - \tan^2 \theta) = (1 - \cos^2 40) \times$$

$$\tan \theta \Rightarrow \tan \theta = \frac{1 \times \frac{1}{\sqrt{2}}}{1 - \frac{1}{2}} = \frac{1/\sqrt{2}}{1/2} = \sqrt{2} \checkmark$$

$$\Rightarrow \theta = 45^\circ = \frac{\pi}{4} \checkmark$$

$$\frac{\sin \theta - \cos \theta}{\sin \theta + \cos \theta} = \frac{\cos \theta (\tan \theta - 1)}{\cos \theta (\tan \theta + 1)} = \frac{10 - 1}{10 + 1} = \frac{9}{11} = 14$$

(14) ✓



$$\sin \alpha = \frac{4}{5} \Rightarrow \alpha = 10$$

$$100 - 44 = 56 \Rightarrow y = 56 \Rightarrow y = 1$$

$$P = 4 + 1 + 1 + 1 + 1 = 8$$

✓

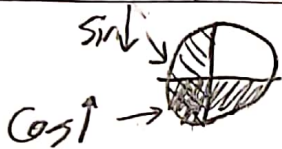


$$\sin 40^\circ = \frac{\sqrt{2}}{2} = \frac{BC}{10} \Rightarrow BC = 5\sqrt{2}$$

$$\cos 40^\circ = \frac{1}{2} = \frac{AB}{10} \Rightarrow AB = 5 \Rightarrow BC = 5$$

$$BC \rightarrow 5\sqrt{2} - 5$$

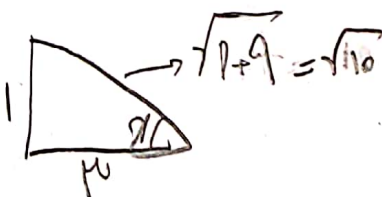
✓



انفت (ناقص سوم) ✓



(- ناقص دوم) ✓



$$\sin \alpha = \frac{1}{10} = \frac{-\sqrt{10}}{10}$$

✓

در ناقص سوم است!