

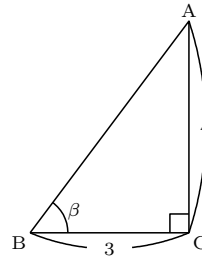
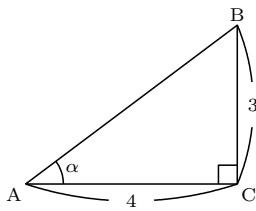
第5章 1. 「鋭角の三角比」 第5回

解答

1. (1) $\frac{3}{5}$ (2) $\frac{4}{5}$ (3) $\frac{3}{4}$ (4) $\frac{4}{5}$ (5) $\frac{3}{5}$ (6) $\frac{4}{3}$
2. (1) $\frac{\sqrt{3}}{2}$ (2) $\frac{1}{\sqrt{2}}$ または $\frac{\sqrt{2}}{2}$ (3) $\frac{1}{\sqrt{3}}$ または $\frac{\sqrt{3}}{3}$ (4) $\frac{1}{\sqrt{2}}$ または $\frac{\sqrt{2}}{2}$
- (5) $\frac{\sqrt{3}}{2}$ (6) $\sqrt{3}$ (7) $\frac{1}{2}$ (8) $\frac{1}{2}$
3. (1) 9.5 (2) 3.1
4. (1) $\cos 13^\circ$ (2) $\sin 25^\circ$ (3) $\frac{1}{\tan 32^\circ}$

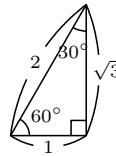
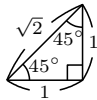
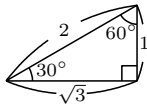
解説

1. $AB^2 = 3^2 + 4^2 = 25$, $AB > 0$ より, $AB = \sqrt{25} = 5$



- (1) $\sin \alpha = \frac{BC}{AB} = \frac{3}{5}$ (2) $\cos \alpha = \frac{AC}{AB} = \frac{4}{5}$ (3) $\tan \alpha = \frac{BC}{AC} = \frac{3}{4}$
- (4) $\sin \beta = \frac{AC}{AB} = \frac{4}{5}$ (5) $\cos \beta = \frac{BC}{AB} = \frac{3}{5}$ (6) $\tan \beta = \frac{AC}{BC} = \frac{4}{3}$

2.



3. (1) $\cos 18^\circ = \frac{AC}{AB}$ より,
 $AC = AB \cos 18^\circ = 10 \times 0.95 = 9.5$
- (2) $\sin 18^\circ = \frac{BC}{AB}$ より,
 $BC = AB \sin 18^\circ = 10 \times 0.31 = 3.1$
4. (1) $13^\circ + 77^\circ = 90^\circ$ より,
 $\sin 77^\circ = \cos 13^\circ$
- (2) $25^\circ + 65^\circ = 90^\circ$ より,
 $\cos 65^\circ = \sin 25^\circ$
- (3) $32^\circ + 58^\circ = 90^\circ$ より,
 $\tan 58^\circ = \frac{1}{\tan 32^\circ}$