

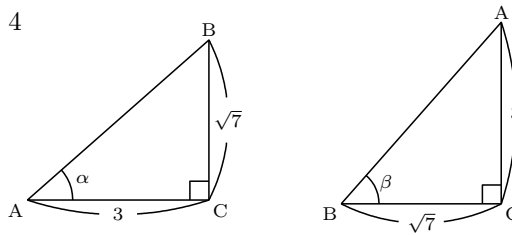
第5章 1. 「鋭角の三角比」 第3回

解答

1. (1) $\frac{\sqrt{7}}{4}$ (2) $\frac{3}{4}$ (3) $\frac{\sqrt{7}}{3}$ (4) $\frac{3}{4}$ (5) $\frac{\sqrt{7}}{4}$ (6) $\frac{3}{\sqrt{7}}$
2. (1) $\frac{1}{2}$ (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) $\frac{\sqrt{3}}{2}$
- (5) $\frac{\sqrt{3}}{2}$ (6) $\sqrt{3}$ (7) $\frac{1}{\sqrt{2}}$ または $\frac{\sqrt{2}}{2}$ (8) $\frac{1}{2}$
3. (1) 4.7 (2) 8.8
4. (1) $\cos 38^\circ$ (2) $\sin 15^\circ$ (3) $\frac{1}{\tan 26^\circ}$

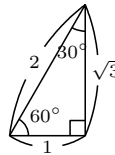
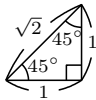
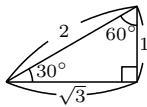
解説

1. $AB > 0$ より, $AB = \sqrt{16} = 4$



- (1) $\sin \alpha = \frac{BC}{AB} = \frac{\sqrt{7}}{4}$ (2) $\cos \alpha = \frac{AC}{AB} = \frac{3}{4}$ (3) $\tan \alpha = \frac{BC}{AC} = \frac{\sqrt{7}}{3}$
- (4) $\sin \beta = \frac{AC}{AB} = \frac{3}{4}$ (5) $\cos \beta = \frac{BC}{AB} = \frac{\sqrt{7}}{4}$ (6) $\tan \beta = \frac{AC}{BC} = \frac{3}{\sqrt{7}}$

2.



3. (1) $\cos 62^\circ = \frac{AC}{AB}$ より,
 $AC = AB \cos 62^\circ = 10 \times 0.47 = 4.7$
- (2) $\sin 62^\circ = \frac{BC}{AB}$ より,
 $BC = AB \sin 62^\circ = 10 \times 0.88 = 8.8$
4. (1) $38^\circ + 52^\circ = 90^\circ$ より,
 $\sin 52^\circ = \cos 38^\circ$
- (2) $15^\circ + 75^\circ = 90^\circ$ より,
 $\cos 75^\circ = \sin 15^\circ$
- (3) $26^\circ + 64^\circ = 90^\circ$ より,
 $\tan 64^\circ = \frac{1}{\tan 26^\circ}$