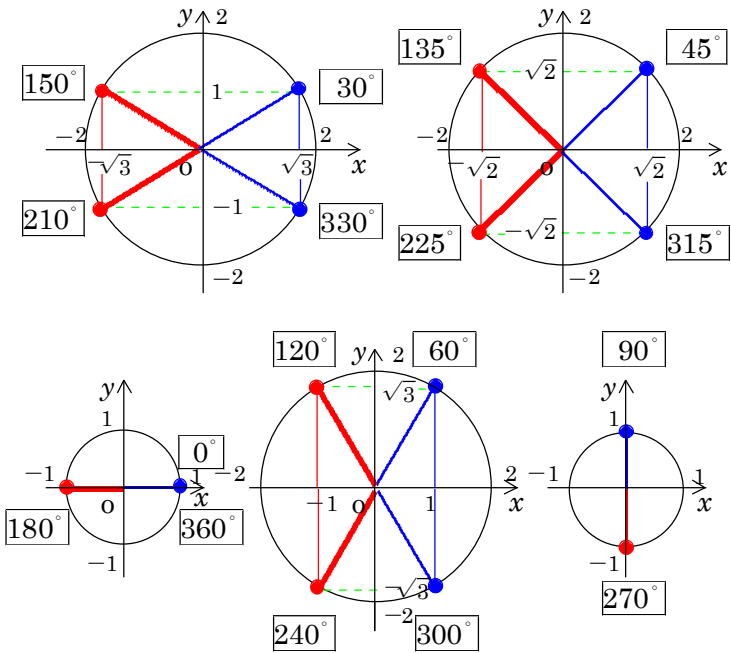


1. 図を利用して、次の三角関数の表を完成せよ。
Complete the following table of trigonometric functions using the diagram.



θ	0°	30°	45°	60°	90°
$\sin \theta$					
$\cos \theta$	1	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{1}{2}$	0

θ	90°	120°	135°	150°	180°
$\sin \theta$					
$\cos \theta$	0	$-\frac{1}{2}$	$-\frac{\sqrt{2}}{2}$	$-\frac{\sqrt{3}}{2}$	-1

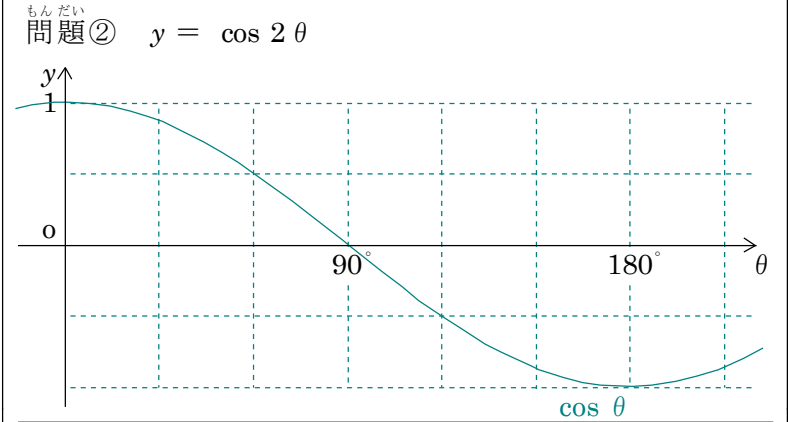
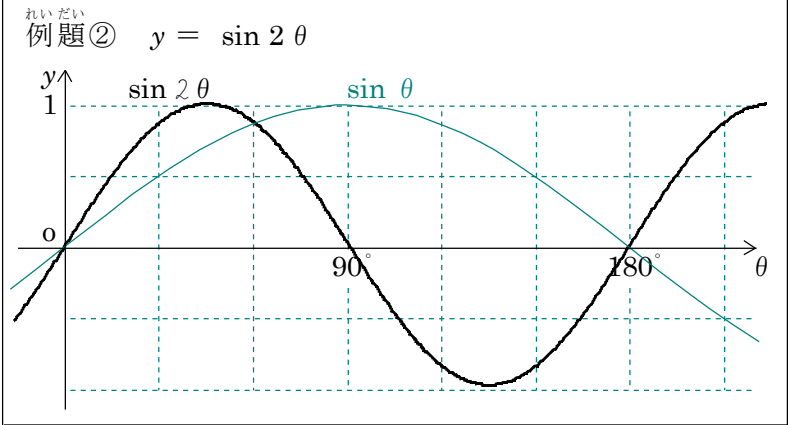
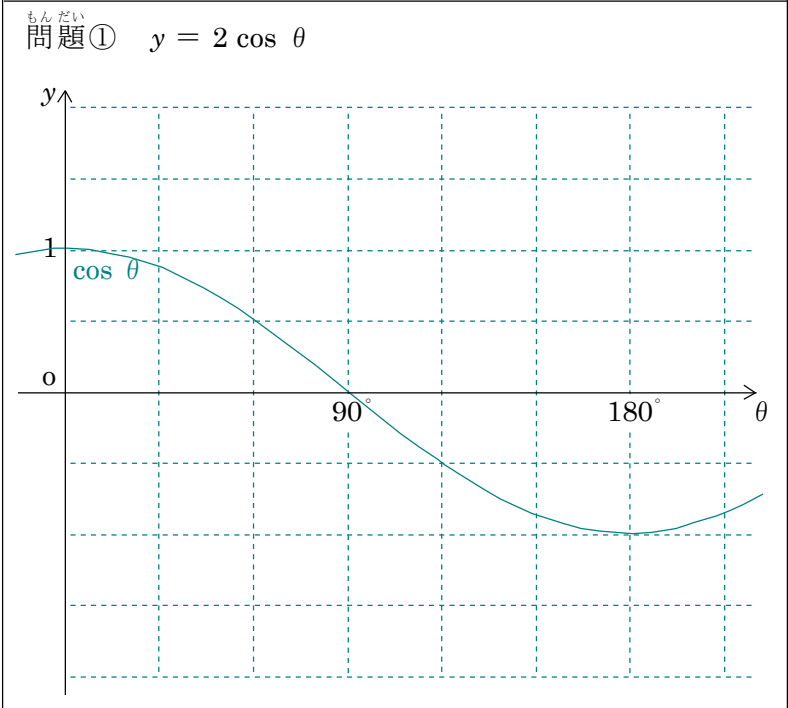
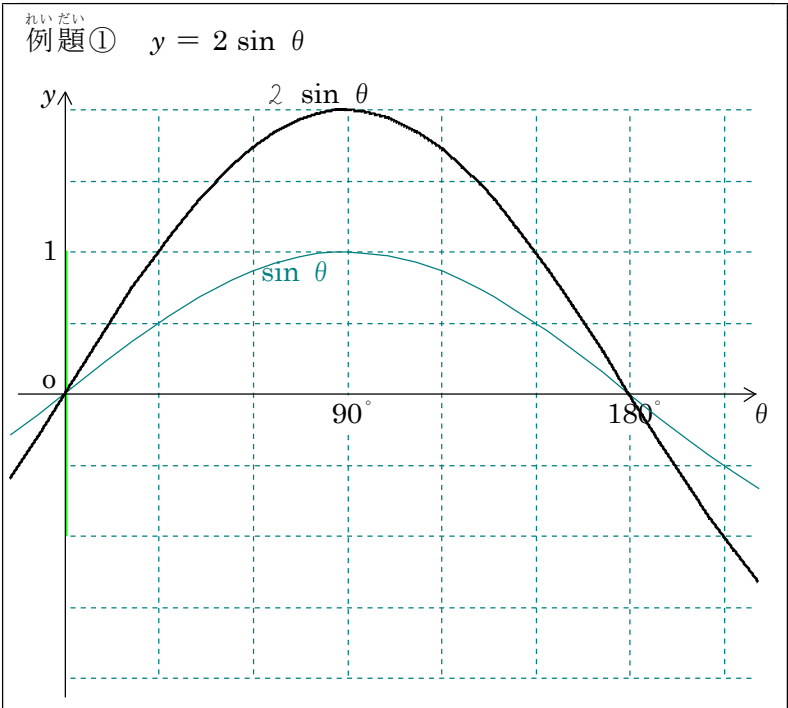
2. 次の三角関数の表を完成せよ。
Complete the following table of trigonometric functions.

θ	0°	30°	45°	60°	90°
$2 \sin \theta$	0	1	$\sqrt{2}$	$\sqrt{3}$	2
$2 \cos \theta$					

θ	0°	30°	45°	60°	90°
$-\sin \theta$					
$-\cos \theta$					

θ	0°	30°	45°	60°	90°
2θ	0°	60°	90°	120°	180°
$\sin 2 \theta$					
$\cos 2 \theta$	1	$\frac{1}{2}$	0	$-\frac{1}{2}$	-1

3. 次の三角関数のグラフを描きなさい。
Draw a graph of the following trigonometric functions.



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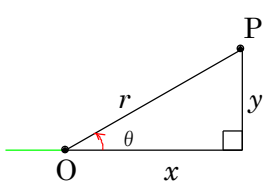
三角関数のグラフ

2

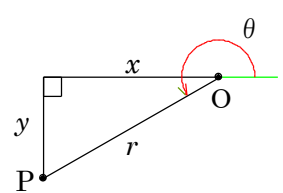
課題

1. 次の三角比を求めなさい。 Find the following trigonometric ratio.

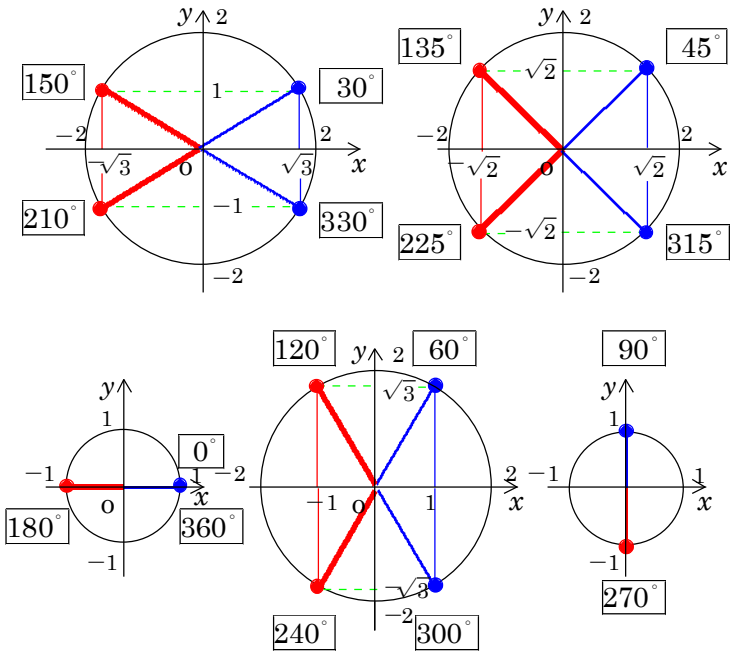
例題


$$\sin \theta = \frac{y}{r}$$
$$\cos \theta = \frac{x}{r}$$

問題


$$\sin \theta = \underline{\hspace{2cm}}$$
$$\cos \theta = \underline{\hspace{2cm}}$$

2. 図を利用して、次の三角関数の表を完成せよ。 Complete the following table of trigonometric functions using the diagram.



θ	0°	30°	45°	60°	90°
$\sin \theta$	0	$\frac{1}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{3}}{2}$	1
$\cos \theta$					

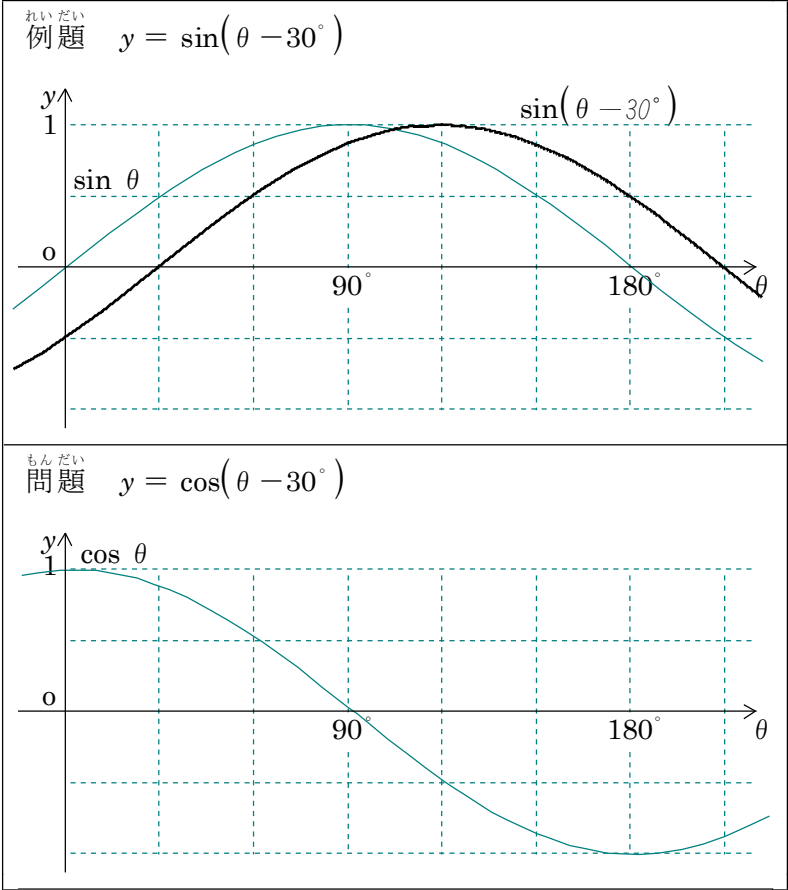
θ	90°	120°	135°	150°	180°
$\sin \theta$					
$\cos \theta$	0	$-\frac{1}{2}$	$-\frac{\sqrt{2}}{2}$	$-\frac{\sqrt{3}}{2}$	-1

3. 次の三角関数の表を完成せよ。 Complete the following table of trigonometric functions.

θ	0°	30°	60°	90°	120°
$\theta - 30^\circ$					
$\sin(\theta - 30^\circ)$	$-\frac{1}{2}$	0	$\frac{1}{2}$	$\frac{\sqrt{3}}{2}$	1
$\cos(\theta - 30^\circ)$					

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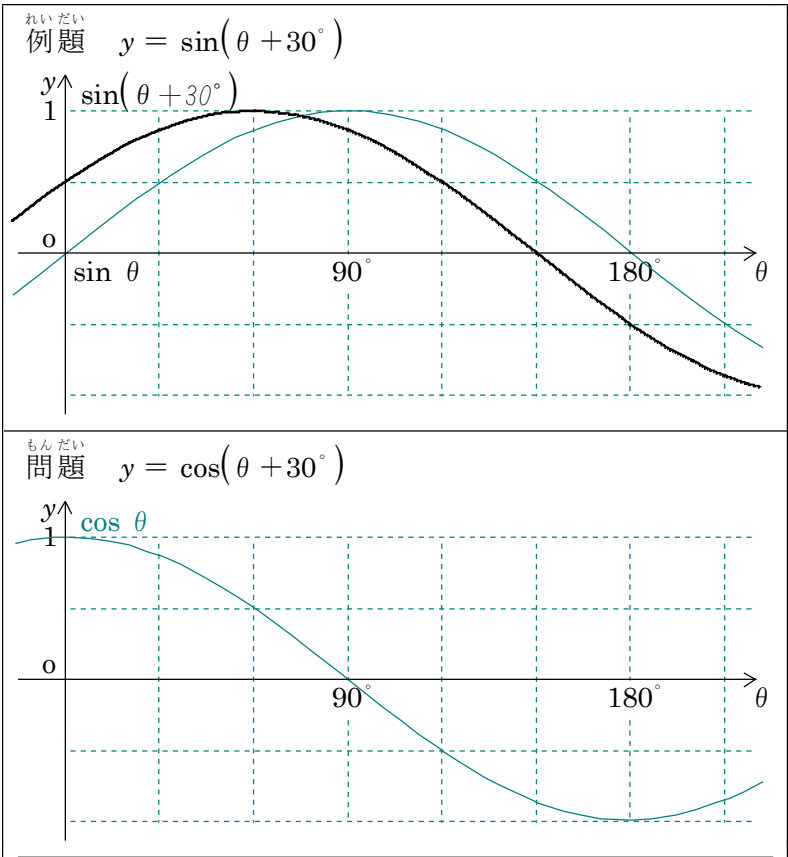
4. 次の三角関数のグラフを描きなさい。 Draw a graph of the following trigonometric functions.



5. 次の三角関数の表を完成せよ。 Complete the following table of trigonometric functions.

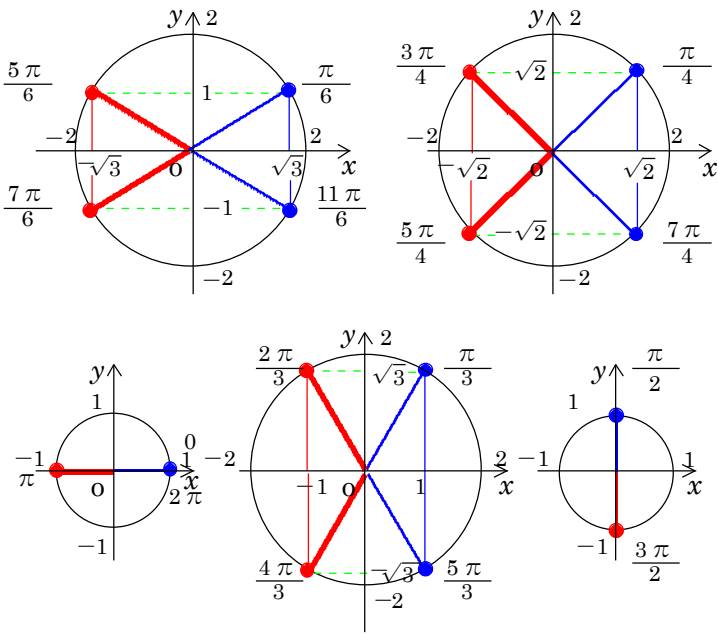
θ	0°	30°	60°	90°	120°
$\theta + 30^\circ$					
$\sin(\theta + 30^\circ)$	$\frac{1}{2}$	$\frac{\sqrt{3}}{2}$	1	$\frac{\sqrt{3}}{2}$	$\frac{1}{2}$
$\cos(\theta + 30^\circ)$					

6. 次の三角関数のグラフを描きなさい。 Draw a graph of the following trigonometric functions.



数学Ⅱ 三角関数のグラフ 3 課題

1. 図を利用して、次の三角関数の表を完成せよ。
Complete the following table of trigonometric functions using the diagram.



θ	0	$\frac{\pi}{6}$	$\frac{\pi}{4}$	$\frac{\pi}{3}$	$\frac{\pi}{2}$
$\sin \theta$	0	—	—	—	1
$\cos \theta$	1	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{1}{2}$	0

θ	$\frac{\pi}{2}$	$\frac{2\pi}{3}$	$\frac{3\pi}{4}$	$\frac{5\pi}{6}$	π
$\sin \theta$	1	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{2}}{2}$	—	0
$\cos \theta$	0	$-\frac{1}{2}$	$-\frac{\sqrt{2}}{2}$	$-\frac{\sqrt{3}}{2}$	-1

θ	π	$\frac{2\pi}{3}$	$\frac{3\pi}{4}$	$\frac{5\pi}{6}$	$\frac{3\pi}{2}$
$\sin \theta$	0	—	$-\frac{\sqrt{2}}{2}$	—	-1
$\cos \theta$	-1	$-\frac{1}{2}$	$-\frac{\sqrt{2}}{2}$	$-\frac{\sqrt{3}}{2}$	0

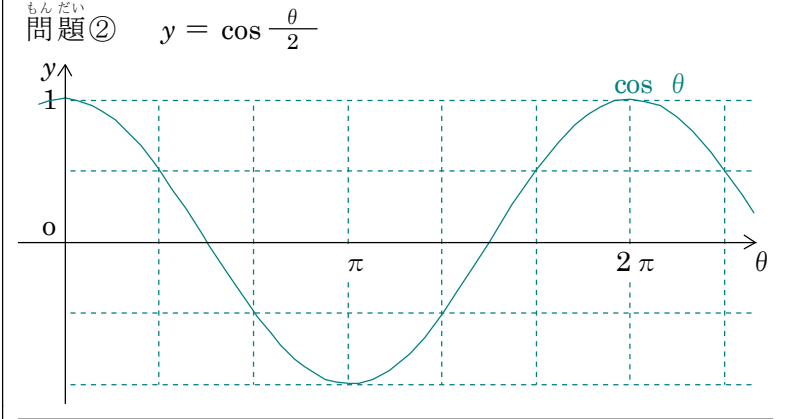
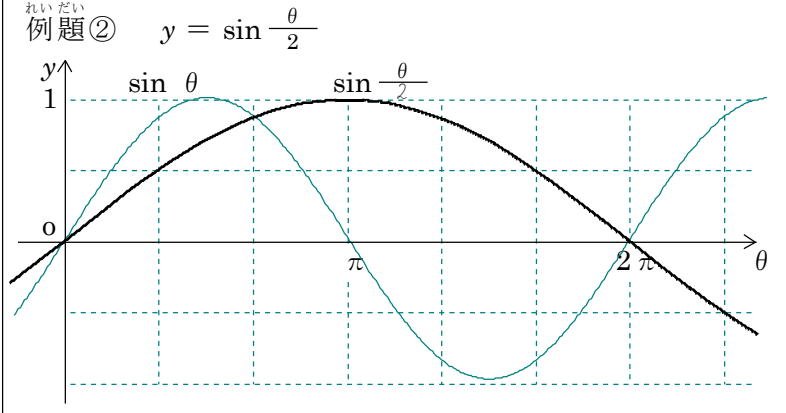
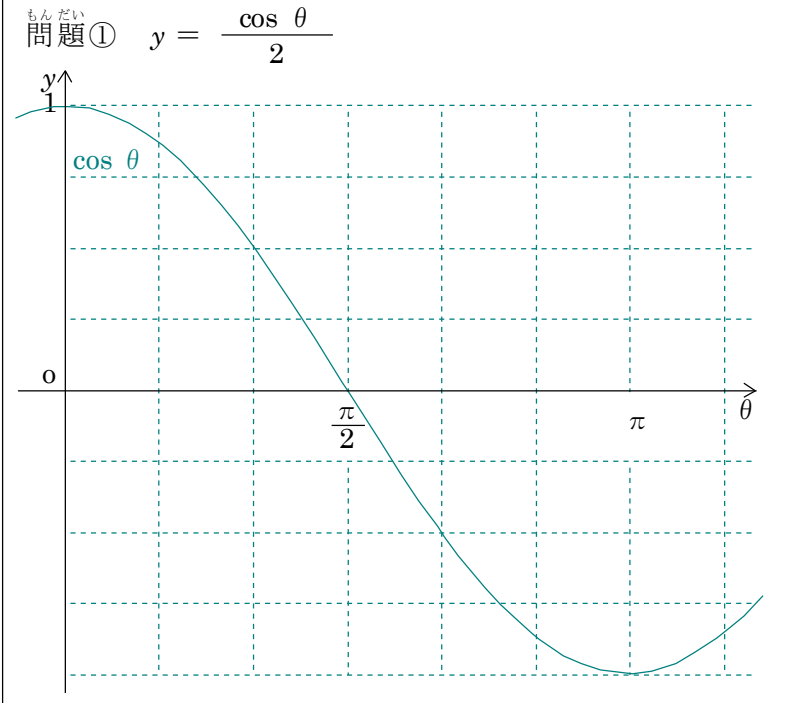
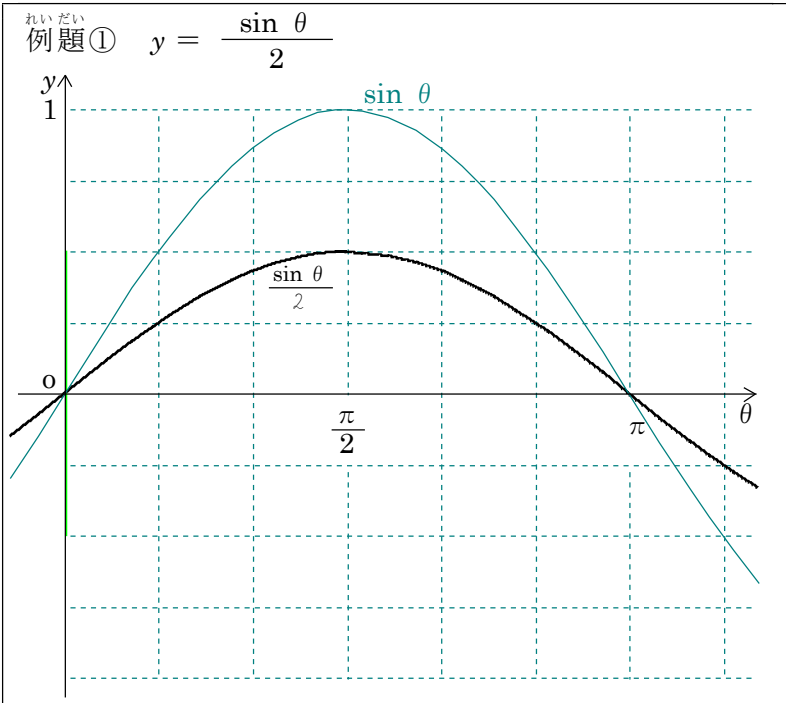
2. 次の三角関数の表を完成せよ。
Complete the following table of trigonometric functions.

θ	0	$\frac{\pi}{6}$	$\frac{\pi}{4}$	$\frac{\pi}{3}$	$\frac{\pi}{2}$
$\frac{\sin \theta}{2}$	0	$\frac{1}{4}$	$\frac{\sqrt{2}}{4}$	$\frac{\sqrt{3}}{4}$	$\frac{1}{2}$
$\frac{\cos \theta}{2}$	1	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{1}{2}$	0

θ	0	$\frac{\pi}{3}$	$\frac{\pi}{2}$	$\frac{2\pi}{3}$	π
$\frac{\theta}{2}$	0	—	—	—	$\frac{\pi}{2}$
$\sin \frac{\theta}{2}$	0	—	—	—	1
$\cos \frac{\theta}{2}$	1	—	—	—	0

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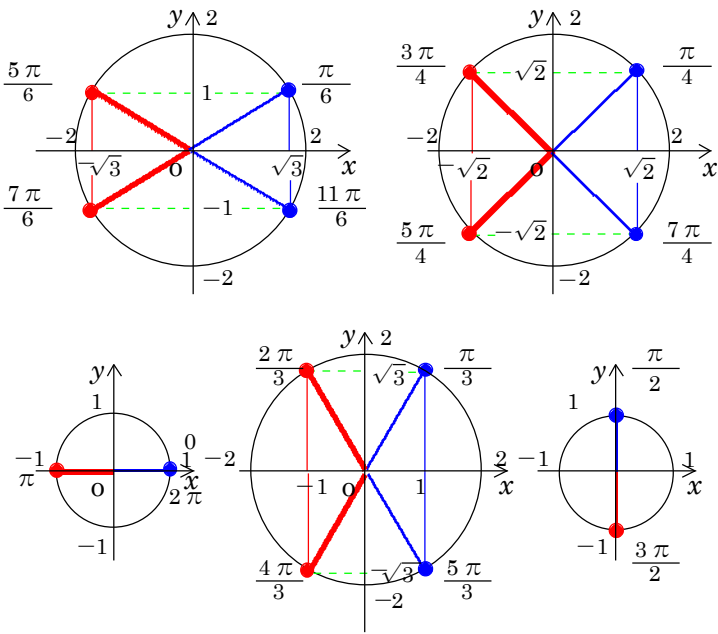
3. 次の三角関数のグラフを描きなさい。
Draw a graph of the following trigonometric functions.



数学Ⅱ 三角関数のグラフ 4 課題

()年()組()番()

1. 図を利用して、次の三角関数の表を完成せよ。
Complete the following table of trigonometric functions using the diagram.



θ	$-\frac{\pi}{2}$	$-\frac{\pi}{3}$	$-\frac{\pi}{4}$	$-\frac{\pi}{6}$	0
$\sin \theta$					
$\cos \theta$		$\frac{1}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{3}}{2}$	

θ	0	$\frac{\pi}{6}$	$\frac{\pi}{4}$	$\frac{\pi}{3}$	$\frac{\pi}{2}$
$\sin \theta$	0	$\frac{1}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{3}}{2}$	1
$\cos \theta$	1				0

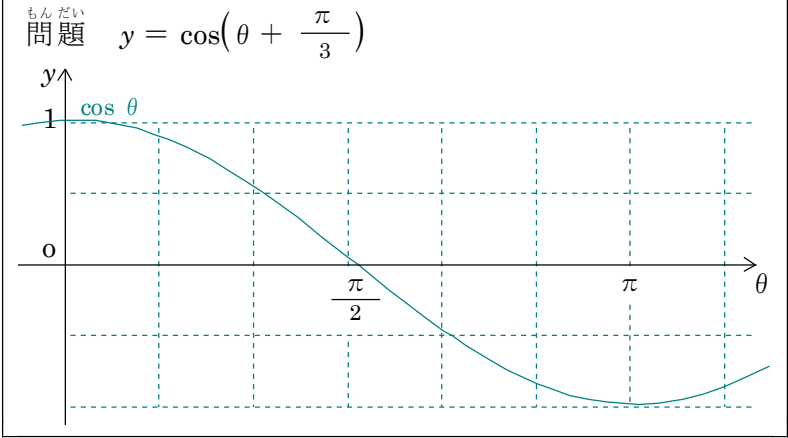
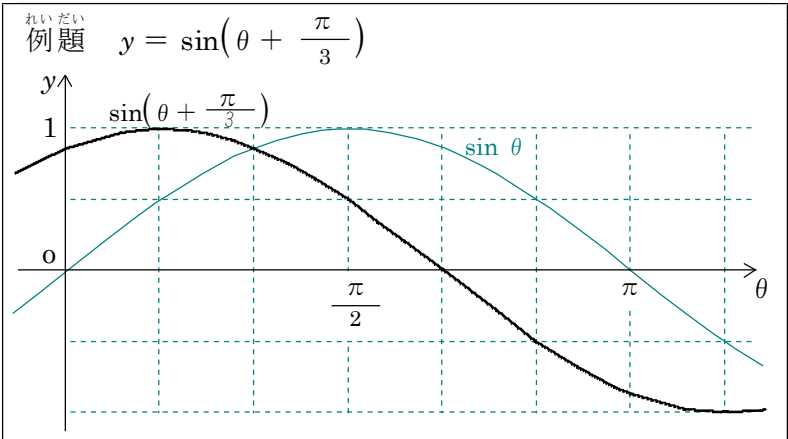
θ	$\frac{\pi}{2}$	$\frac{2\pi}{3}$	$\frac{3\pi}{4}$	$\frac{5\pi}{6}$	π
$\sin \theta$	1	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{2}}{2}$		0
$\cos \theta$		$-\frac{1}{2}$	$-\frac{\sqrt{2}}{2}$	$-\frac{\sqrt{3}}{2}$	-1

2. 次の三角関数の表を完成せよ。
Complete the following table of trigonometric functions.

θ	0	$\frac{\pi}{6}$	$\frac{\pi}{3}$	$\frac{\pi}{2}$
$\theta + \frac{\pi}{3}$	$\frac{\pi}{3}$	$\frac{\pi}{2}$	$\frac{2\pi}{3}$	$\frac{5\pi}{6}$
$\sin(\theta + \frac{\pi}{3})$	$\frac{\sqrt{3}}{2}$	1	$\frac{\sqrt{3}}{2}$	$\frac{1}{2}$
$\cos(\theta + \frac{\pi}{3})$				

θ	$\frac{\pi}{2}$	$\frac{2\pi}{3}$	$\frac{5\pi}{6}$	π
$\theta + \frac{\pi}{3}$	$\frac{5\pi}{6}$	π	$\frac{7\pi}{6}$	$\frac{4\pi}{3}$
$\sin(\theta + \frac{\pi}{3})$				
$\cos(\theta + \frac{\pi}{3})$				

3. 次の三角関数のグラフを描きなさい。
Draw a graph of the following trigonometric functions.



4. 次の三角関数の表を完成せよ。
Complete the following table of trigonometric functions.

θ	0	$\frac{\pi}{6}$	$\frac{\pi}{3}$	$\frac{\pi}{2}$
$\theta - \frac{\pi}{6}$	$-\frac{\pi}{6}$	0	$\frac{\pi}{6}$	$\frac{\pi}{3}$
$\sin(\theta - \frac{\pi}{6})$	$-\frac{1}{2}$	0	$\frac{1}{2}$	$\frac{\sqrt{3}}{2}$
$\cos(\theta - \frac{\pi}{6})$				

5. 次の三角関数のグラフを描きなさい。
Draw a graph of the following trigonometric functions.

