

$0 \leq \theta < 2\pi$ のとき、
不等式 $\cos 2\theta + \cos \theta < 0$ を解け。

今回の学習目標

倍角公式を使って方程式・不等式を解く

- コサインの倍角公式

倍角の公式

$$\cos 2\alpha = \cos^2 \alpha - \sin^2 \alpha$$

加法定理

$$\boxed{2} \quad \cos(\alpha + \beta) = \cos \alpha \cos \beta - \sin \alpha \sin \beta$$

例 1

$0 \leq \theta < 2\pi$ のとき、次の方程式を解け。
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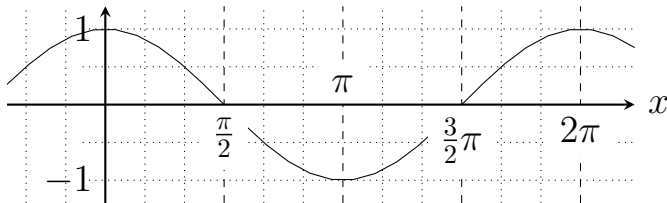
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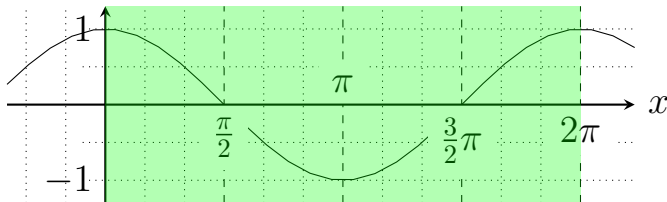
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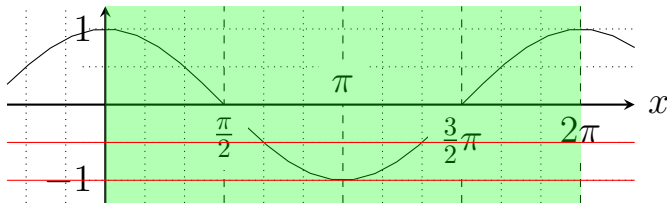
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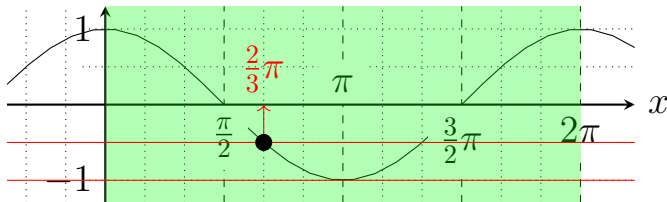
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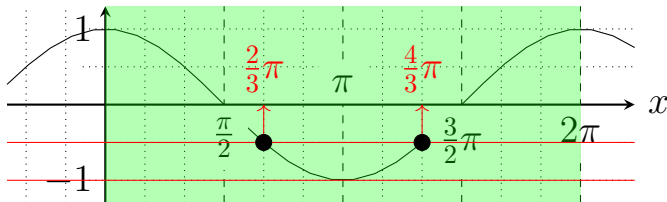
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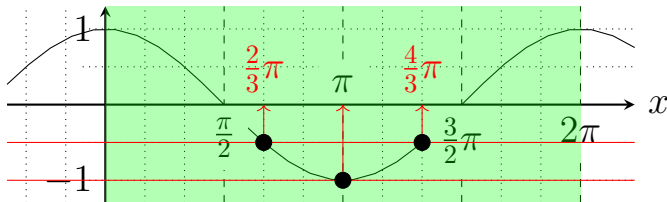
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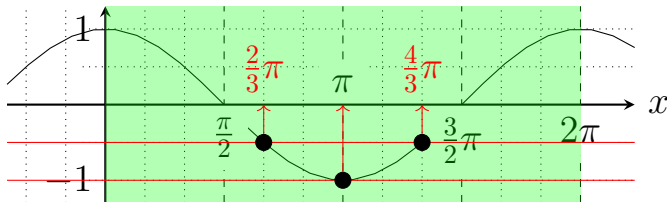
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答 $\theta = \frac{2}{3}\pi, \pi, \frac{4}{3}\pi$

ビデオを止めて問題を解いてみよう

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(1) $\cos 2\theta + \cos \theta = 0$

(2) $\cos 2\theta + 5 \cos \theta + 3 = 0$



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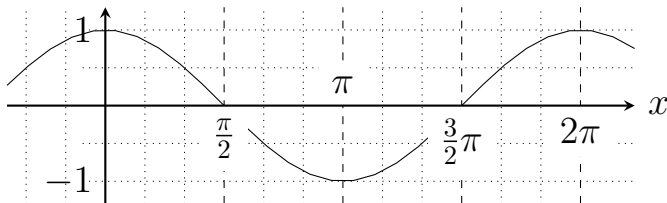
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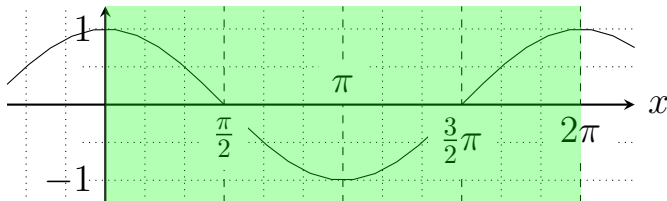
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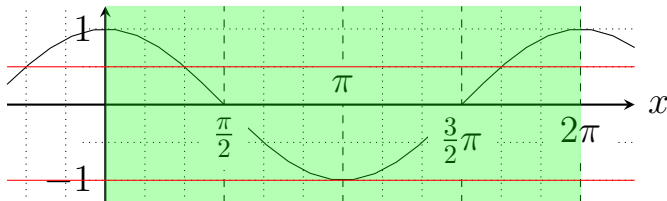
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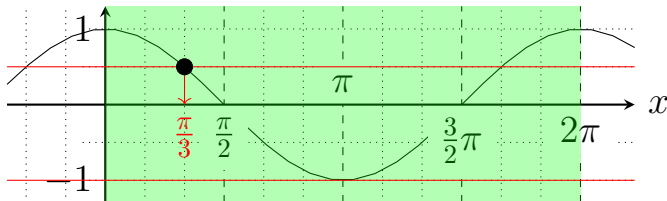
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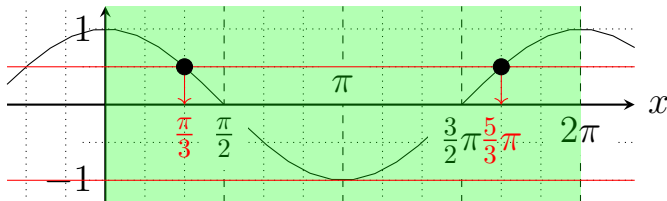
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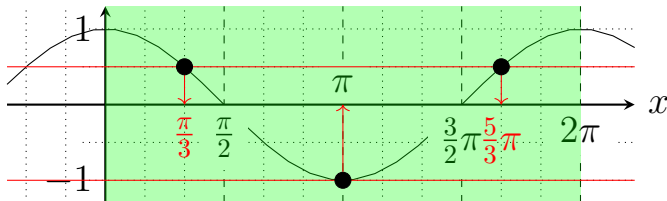
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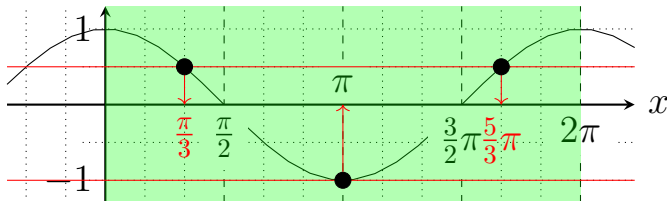
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答 $\theta = \frac{\pi}{3}, \pi, \frac{5}{3}\pi$

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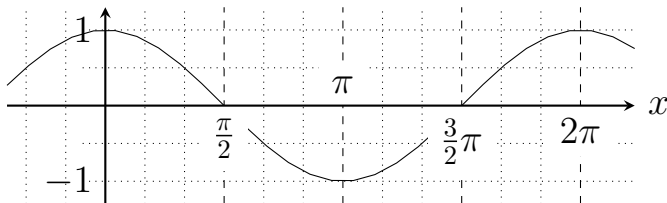
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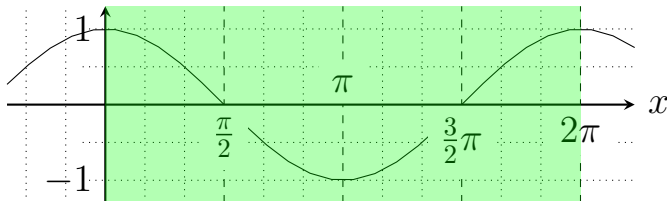
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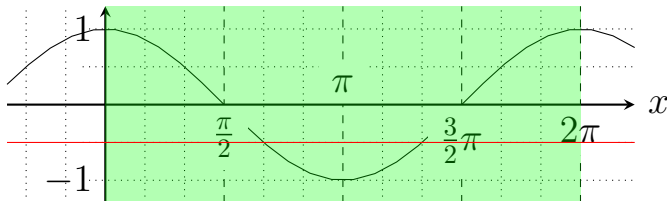
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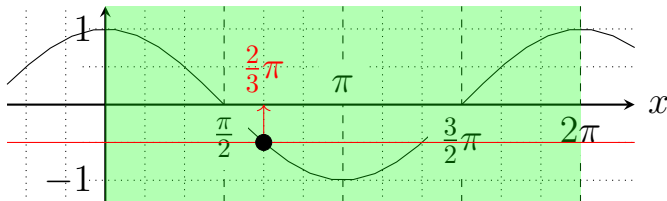
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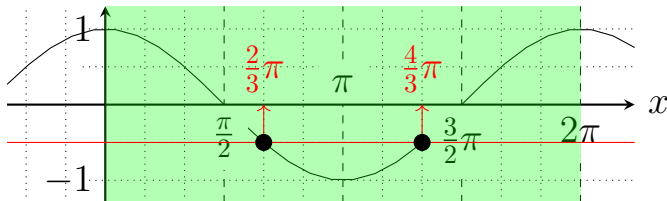
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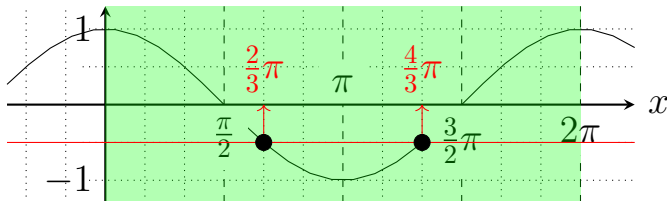
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答	$\theta = \frac{2}{3}\pi, \quad \frac{4}{3}\pi$
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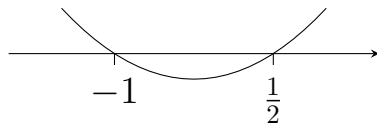
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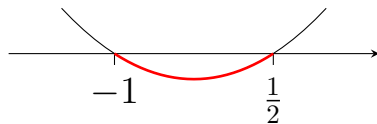


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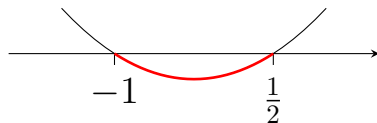
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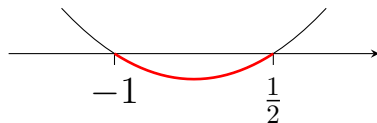
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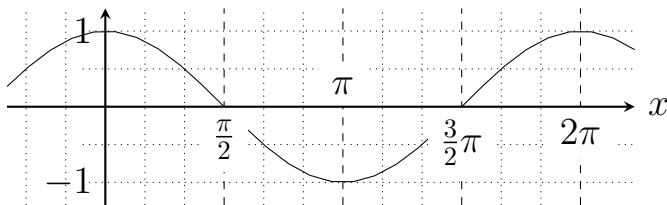
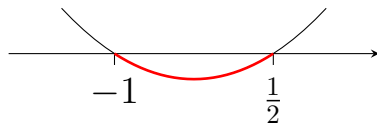
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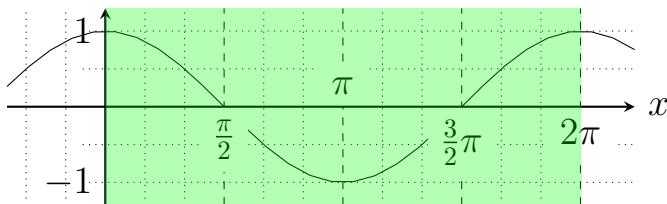
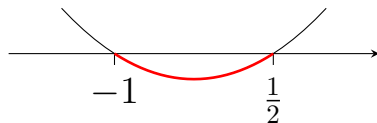
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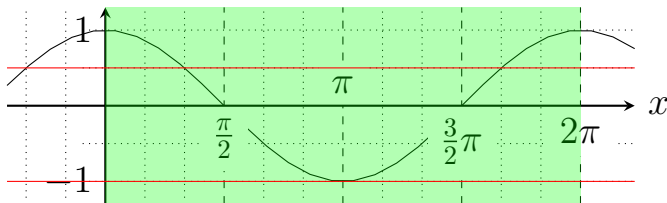
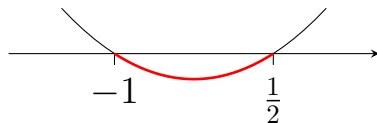
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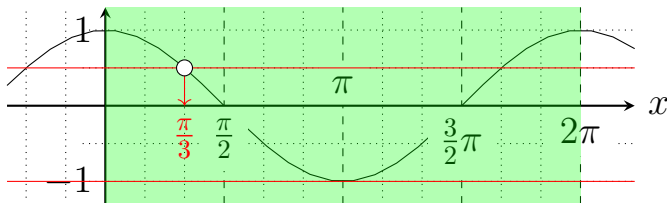
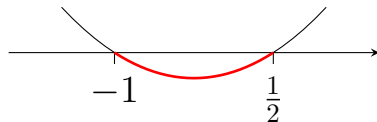
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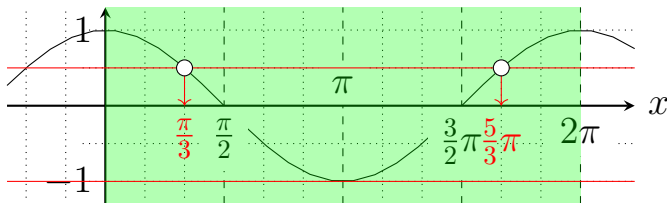
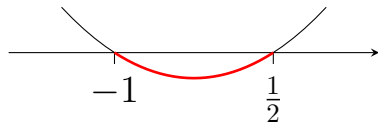
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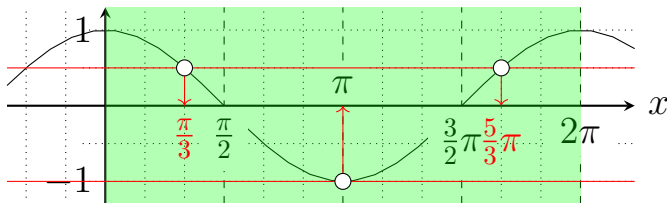
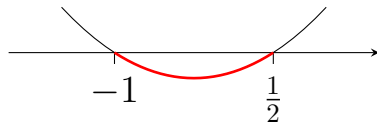
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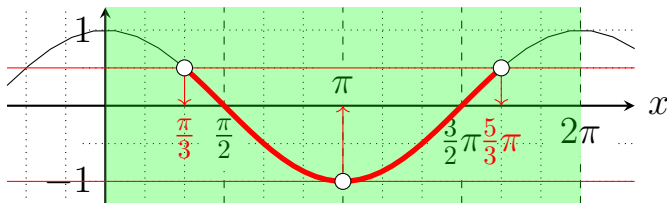
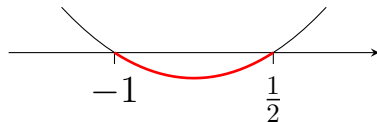
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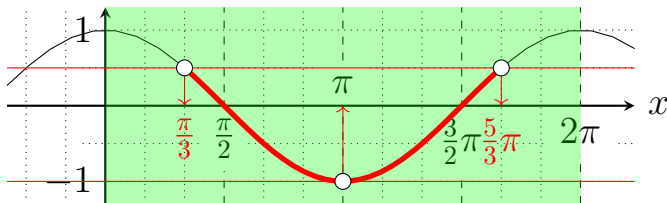
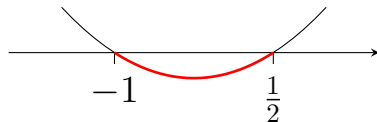
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答 $\frac{\pi}{3} < \theta < \pi, \quad \pi < \theta < \frac{5}{3}\pi$

ビデオを止めて問題を解いてみよう

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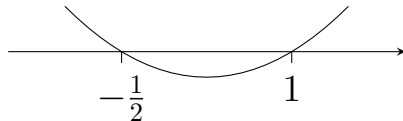


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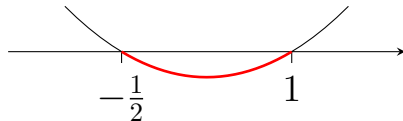


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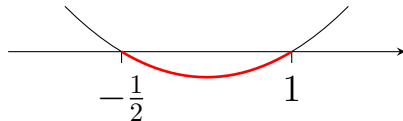
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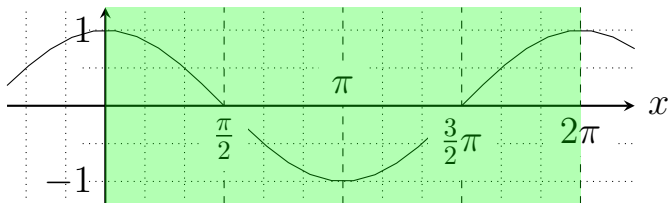
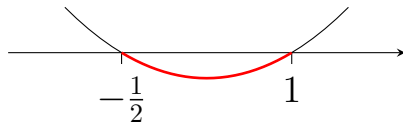
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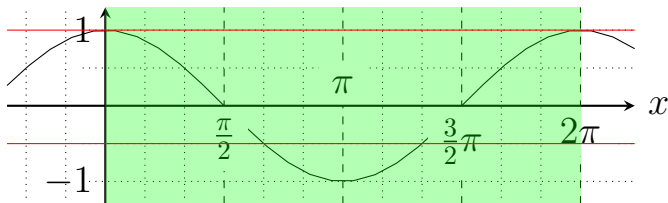
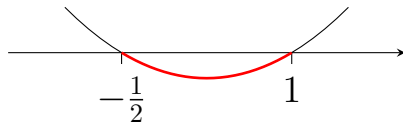
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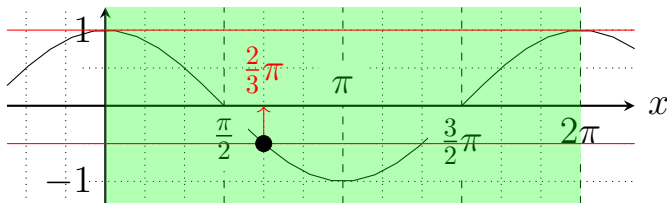
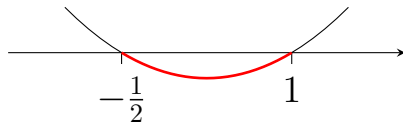
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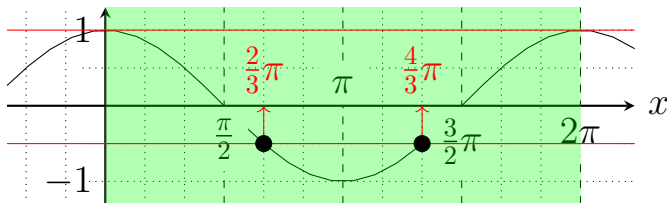
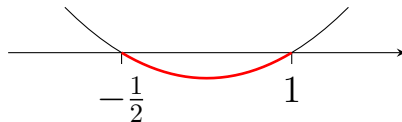
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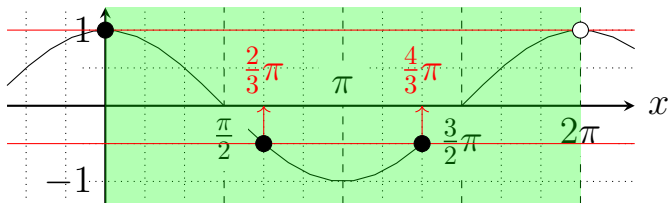
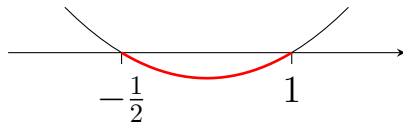
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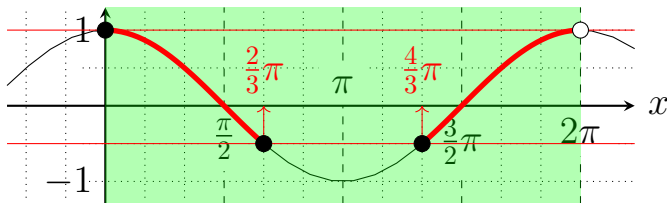
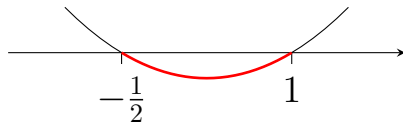
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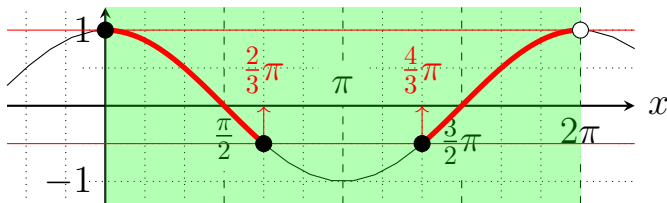
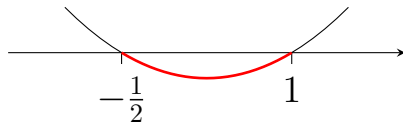
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今回の学習目標

倍角公式を使って方程式・不等式を解く

- これまでの学習内容の総合