

Target 5A: Describe and convert between radian and degree measure

DOK 1 Apply	DOK2 Analyze	DOK2 Analyze
<p>Express 200° in radians.</p> <p>Express $\frac{7\pi}{18}$ in degrees.</p>	<div data-bbox="751 240 1108 581" data-label="Diagram"> </div> <p>Using the diagram above, describe the bearing of Karen.</p> <p>Convert the angle to radians.</p>	<div data-bbox="1451 240 1801 581" data-label="Diagram"> </div> <p>Using the diagram above, describe the bearing of Karen.</p> <p>Convert the angle to radians.</p>

Target 5A: Describe and convert between radian and degree measure

DOK3 Analyze	DOK3 Understand	DOK4 Understand
<p>Using the two drawings to the left, Karen is 4 feet from Stephen. How far did Karen move if she rotates from her 1st location to her 2nd location?</p>	<p>Can the radian measure of all three angles in a triangle be integers? Explain your thinking with supporting work.</p>	<p>Control Tower A is 60 miles east of control tower B. At a certain time an airplane is at a navigational angle of 340° from tower A and 37° from tower B. Describe why knowing this information would be useful.</p>

Target 5B/C/D: Generate Unit Circle from Special Right Triangles; Evaluate Trig Functions & Expressions Using Unit Circle; Use Reference Angles to Evaluate Trig Ratios Given Specific Constraints

DOK 1 Remember	DOK 1 Apply	DOK2 Apply
Identify the coordinates of the point on the terminal side of $\frac{4\pi}{3}$.	For $\theta = \frac{2\pi}{3}$, evaluate $\sec \theta$ and $\tan \theta$.	Given $\sec \theta = \frac{13}{5}$ and $\sin \theta < 0$, find $\tan \theta$.

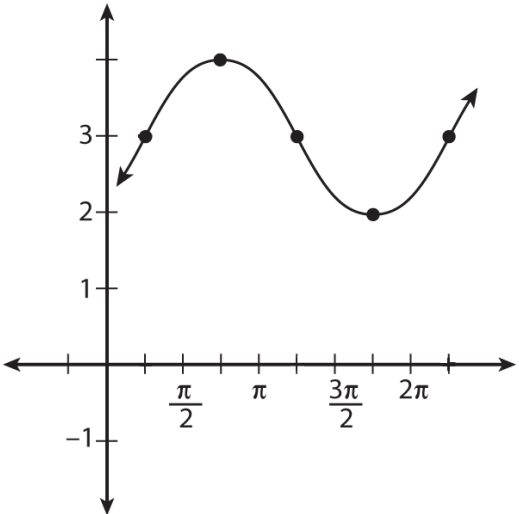
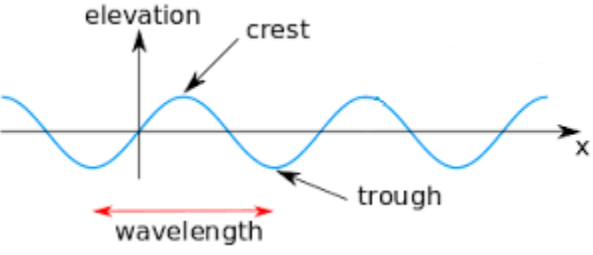
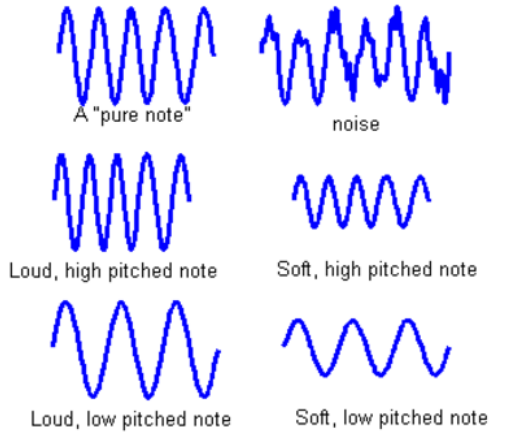
Target 5B/C/D: Generate Unit Circle from Special Right Triangles; Evaluate Trig Functions & Expressions Using Unit Circle; Use Reference Angles to Evaluate Trig Ratios Given Specific Constraints

DOK3 Apply	DOK4 Evaluate	DOK4 Understand
From a point 300 ft along a horizontal line from the base of a building, the angle of elevation to the top of the building is 42° . How tall is the building?	Explain why the sine of an acute angle is equal to the cosine of its complement.	Show how special right triangles are used to generate the unit circle.

Target 5E: Rigid and Non-Rigid Transformations of Sinusoids

DOK 1 Apply	DOK2 Apply	DOK2 Apply
<p>Identify the amplitude and period for:</p> $y = 4 \sin 6x$	<p>Sketch two full periods of the graph of the function:</p> $f(x) = 3 \cos x + 1.$	<p>Identify the amplitude, period, and the phase shift for the given sine graph.</p>

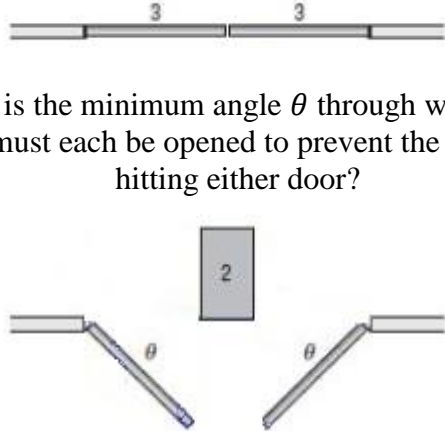
Target 5E: Rigid and Non-Rigid Transformations of Sinusoids

DOK3 Understand	DOK4 Understand	DOK4 Understand
 <p>Write two different functions for the given graph.</p>	 <p>A tsunami wave can be modeled by a sine curve. Describe the terminology used for a tsunami wave in terms of the terminology used for sinusoidal curves.</p>	 <p>Describe the differences in the sound waves of notes shown above in terms of the terminology used for sinusoidal curves.</p>

Target 5F: Evaluate Inverse and Composite Trigonometric Functions and Expressions Using the Unit Circle

DOK 1 Apply	DOK2 Understand	DOK2 Understand
Evaluate, in radians, $\cos^{-1}\left(\frac{\sqrt{3}}{2}\right)$ and $\arcsin\left(\frac{\sqrt{2}}{2}\right)$.	Using a calculator, evaluate $\cos^{-1}(0.32)$, in degrees. Explain what your answer means.	Evaluate $\sin\left(\arctan\left(\frac{2}{5}\right)\right)$

Target 5F: Evaluate Inverse and Composite Trigonometric Functions and Expressions Using the Unit Circle

DOK3 Understand	DOK3 Apply	DOK4 Analyze
<p>Evaluate $\cos\left(\arcsin\left(\frac{x}{2}\right)\right)$.</p>	<div style="text-align: center;">  <p style="text-align: center;">What is the minimum angle θ through which the doors must each be opened to prevent the cart from hitting either door?</p> </div>	<p>Explain why for all real numbers x $\sin(\sin^{-1} x) = x$ is false.</p>

TEMPLATE

Topic

DOK 1	DOK2	DOK2	DOK3	DOK3	DOK4
Question	Question	Question	Question	Question	Question
Students show work here	Students show work here	Students show work here	Students show work here	Students show work here	Students show work here