

6.3 Unit Circle Values Quiz

Get out blue CM when you are finished with the quiz

Jan 18-10:38 AM

- > Review unit 6
- > Turn in 6.4 homework from last class.
- > CM Pg.3-5 Cylinder, Square Pyramid, Prism
- > 6.3 Quiz-Unit Circle Values
- > Test Thursday.. All absent, late, redo work is due Thursday
- > This includes all quizzes and all assignments from 3rd quarter.

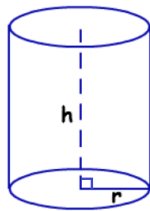
Jan 18-10:05 AM

Calendar Math Pg.3-4

Pg.3 Fact: Whenever a slice is made parallel to the base, then a cross section will be the same as the base.

Right Cylinder:

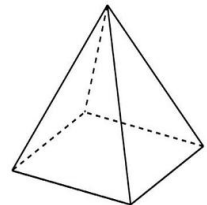
1. Horizontal Slice: circle
2. Vertical Slice: rectangle
3. Diagonal Slice: ellipse  
(not through the base)



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Pg.4

Square Base Pyramid:



1. Horizontal Slice: Square
2. Vertical Slice: Triangle  
through the vertex and opposite the base
3. Vertical Slice: trapezoid  
not through the vertex opposite the base
4. Diagonal Slice: trapezoid  
through all four lateral sides

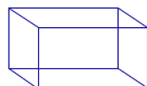
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Pg.5

Fact: The maximum number of sides that a 2D cross section can have is equal to the number of faces of the 3D figure from which it is sliced.

Right Rectangular Prism:

1. Horizontal Slice: rectangle
2. Vertical Slice: rectangle
3. A slice that cuts off a corner: triangle



Jan 18-4:07 PM

Questions 6.4

$$\textcircled{42} \textcircled{5} \tan^2 x - 15 = 0$$

$$\sqrt{\tan^2 x} = \sqrt{3}$$

$$\tan x = \sqrt{3} \quad \tan x = -\sqrt{3}$$

$$x = \frac{\pi}{3}, \frac{4\pi}{3}, \frac{2\pi}{3}, \frac{5\pi}{3}$$

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46)  $2\sin^2 x - 1 = 0$   
 $\sqrt{\sin^2 x} = \frac{\sqrt{1}}{\sqrt{2}} \quad \sin x = \frac{1}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}}$   
 $\sin x = \frac{\sqrt{2}}{2} \quad \sin x = -\frac{\sqrt{2}}{2}$   
 $x = \frac{\pi}{4}, \frac{3\pi}{4}, \frac{5\pi}{4}, \frac{7\pi}{4}$

Jan 24-8:04 AM

46)  $\tan x \sin^2 x = \tan x$   
 $\tan x \sin^2 x - \tan x = 0$   
 $\tan x (\sin^2 x - 1) = 0$   
 $\tan x = 0 \quad \sin^2 x = 1 \quad \sin x = 1 \quad \sin x = -1$   
 $x = 0, \pi \quad x = \frac{\pi}{2} \quad x = \frac{3\pi}{2}$

Jan 24-8:08 AM

$\cos x = 0 \quad \tan x = \frac{\sqrt{3}}{3}$   
 ~~$x = \frac{\pi}{2}, \frac{3\pi}{2}$~~   
 $x = \frac{\pi}{6}, \frac{7\pi}{6}$

Jan 24-8:16 AM

51)  $2\sin^2 x - 3\sin x - 2 = 0 \quad u = \sin x$   
 $2u^2 - 3u - 2 = 0$   
 $(2u-4)(u+1) = 0$   
 $(u-2)(u+1) = 0$   
 $u = 2 \quad u = -1 \quad \sin x = -\frac{1}{2}$   
 $\sin x = 2$   
 $x = \frac{7\pi}{6}, \frac{11\pi}{6}$

Jan 24-8:18 AM

6.4 #1 21  
 6.4 #2 30

Jan 24-8:28 AM

Positive:

$\sin x$	$\cos x$	$\tan x$
$\pi - \theta$	$2\pi - \theta$	$\pi + \theta$

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Negative:

$\sin x$	$\cos x$	$\tan x$
$3\pi - \theta$	$2\pi - \theta$	$\theta - \pi$

Jan 18-3:20 PM