Calendar Math Quiz

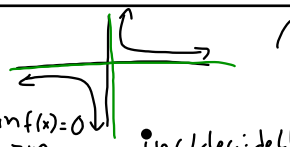
New Calendar Math

Homework Questions

4.2 Domain, Range, and Symmetry

Oct 31-1:55 PM

Rational $\frac{1}{x}$



end beh: $\lim_{x\to-\infty} f(x)=0$ $\lim_{x\to\infty} f(x)=0$

D: $(-\infty,0)\cup(0,\infty)$

R: $(-\infty,0)\cup(0,\infty)$

V/H: $v=0$ $h=0$

cont: discont

int: none

inc/dec: dec $(-\infty,0)\cup(0,\infty)$

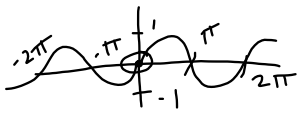
P/N: + $(0,\infty)$ − $(-\infty,0)$

max/min: none

Sym: neither

Nov 1-10:10 AM

Sin x



end beh: none approach no limit

D: $(-\infty,\infty)$ inc/dec: alt. inc/dec

R: $[-1,1]$ P/N: alt. +/−

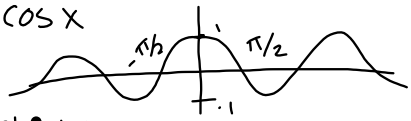
V/H: none max: 1 min: −1

cont: continuous Sym: even

int: $X(\pm k\pi,0)$ $y(0,0)$

Nov 1-10:18 AM

cos x



eb: none inc/dec: alt

D: $(-\infty,\infty)$ P/N: alt.

R: $[-1,1]$ max: 1 min: −1

V/h: none Sym: even

continuous

X: $x(\pm k\frac{\pi}{2},0)$ y: $(0,1)$

Nov 1-10:24 AM

int [x] eb: $x\to-\infty = -\infty$ $x\to\infty = \infty$

D: $-\infty,\infty$

R: y is an integer

V/H: none P/N: + $(0,\infty)$ − $(-\infty,0)$

disc. M/mn: none

Sym: neither

X (0,0) y (0,0)

inc/dec: neither

Nov 1-10:27 AM

November Calendar Math

Oct 31-1:56 PM

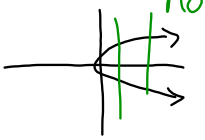
To determine if the graph is a function do a the vertical line test

VLT: draw vertical lines

passes more than once not function

yes

not function



Oct 31-1:56 PM

ex 1

? yes

D: $(-\infty, \infty)$

R: $(-\infty, 4]$

ex 2

? yes

D: $(-\infty, \infty)$

R: $(-\infty, \infty)$

Nov 1-10:33 AM

Solve for x

ex 3 $f(x) = \sqrt{2-x}$ D: $(-\infty, 2]$

$2 - x \geq 0$

$+x \quad +x$

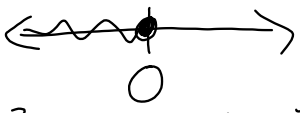
$2 \geq x$

$x \leq 2$

Nov 1-10:36 AM

ex 4

$\sqrt{-\frac{1}{3}x}$



$-3 \cdot -\frac{1}{3}x \geq 0 \cdot -3$

$x \leq 0$

D: $(-\infty, 0]$

Nov 1-10:39 AM

Domain: Solve for x on bottom

$\frac{7x^2 - 15x + 8}{4x - 3}$

$x - 1 = 0$

$+1 \quad +1$

$x = 1$

$7x - 8 = 0$

$\frac{7}{7} \quad +8 \quad +8$

$\frac{7}{7}$

$x = 8/7$

$7x^2 - 15x + 8$

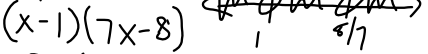
56

$-7 \quad -8$

-15

$\frac{(7x-7)}{7}\frac{(7x-8)}{7}$ $x \neq 1, 8/7$

$(x-1)(7x-8)$



D: $(-\infty, 1) \cup (1, 8/7) \cup (8/7, \infty)$

Oct 31-1:58 PM

Symmetry:

plug in $\pm$ # (same) for x

-1, 1

odd

(a, b)

$(-a, -b)$

signs switch for a & b (x & y)

Oct 31-2:03 PM

even

(a, b)

$(-a, b)$

x y

x's will switch signs

Nov 1-10:46 AM

ex 6

$1 = 1$

$-1 = 1$

even

$(1, 1)$

$(-1, 1)$

ex 7

$1 = -2$

$-1 = 2$

odd

$(1, -2)$

$(-1, 2)$

Nov 1-10:46 AM