Review Starter

RS-1 and RS-2

Graph a piecewise: you graph part of more than one function (piece)

1. put the first function in y=

Mar 30-7:23 AM

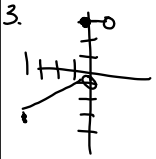
1. $y=\frac{2}{3}x-1$ $-4\leq x<0$

the piece is between $x=-4$ and $x=0$

2. $f(-4)=-3.67$

$f(0)=-1$

3.



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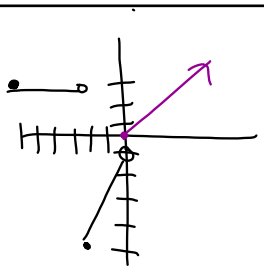


3 $-6\leq x<-2$

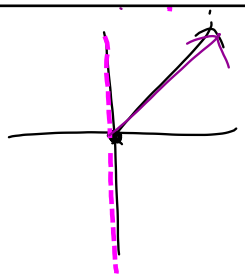
$2x-1$ $-2\leq x<0$

$f(-2)=-5$

$f(0)=-1$

X $0\leq x$

Mar 30-7:59 AM



$x\geq 0$

Mar 30-8:02 AM

RS-2

Solve system

$Y_1=$

$Y_2=$

Where do they cross

$x=0$ $(0,-1)$

$x=1$ $(1,1)$

Mar 30-7:47 AM

② Solve the inequality $0\geq x^2-3x-4$

1. Find the x-intercepts $x^2-3x-4\leq 0$
2. Draw a # line
3. make a sign chart

$x=-1$ $x=4$

+ − +

4. write in interval notation $[-1,4]$

Mar 30-8:07 AM

Write an equation fro. a graph

1. identify the parent function
2. write transformations left, right, up, down

$\sqrt{x}$

right 2 $\sqrt{x-2}$

up 1, $f(x)=\sqrt{x-2}+1$

$f(x)=3\sqrt{x}+4$

Mar 30-8:13 AM

Calendar Math X-Men Factoring

X-Man a·c

x^2+3x-4 -4 / 4 -1 / 3

$a=1$ $b=3$ $c=4$

$(1x+4)(1x-1)$

$(x+4)(x-1)$

Mar 30-7:27 AM

$2x^2+x-6$ -12 / 4 -3 / 1

$a=2$ $b=1$ $c=-6$

$(2x+4)(2x-3)$

Take out the garbage

$(x+2)(2x-3)$

Mar 30-8:22 AM

$6x^2+7x-3$ -18 / 9 -2 / 7

$a=6$ $b=7$ $c=-3$

$(6x+9)(6x-2)$

$(2x+3)(3x-1)$

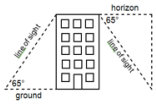
Mar 30-8:26 AM

8.3 Angles of Elevation and Depression (G-SRT.8, pg 286)

Vocab:

Angle of Elevation: looking up from the ground

Angle of Depression: looking down from the horizon (parallel to the ground)



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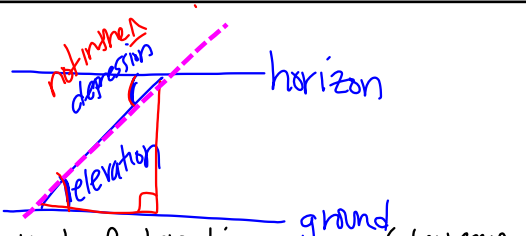

Angle of elevation = angle of depression

$65 = 65$

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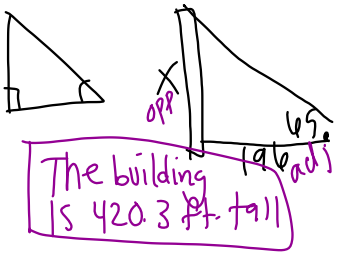
Ex1) You are standing 196 feet from the base of an office building downtown in SLC. The angle of elevation to the top of the building is 65°. FInd the height of the building.



$\tan 65° = \frac{x}{196}$

The building is 420.3 ft. tall

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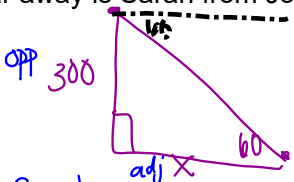
EX2) John is standing on the roof of a building that is 300 feet tall and sees Sarah on the ground. If the angle of depression is 60°, how far away is Sarah from John?



$\tan 60° = \frac{300}{x}$

$x = \frac{300}{\tan 60}$

Sarah and John are 173.2 ft. apart.

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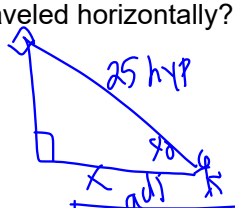
Ex3) A kite has 25 feet of string. The wind is blowing the kite to the west so that the angle of elevation is 40°. How far has the kite traveled horizontally?



$\cos 40° = \frac{x}{25}$

$x = 19.2$

The kite traveled 19.2 ft.

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Ex4) A sledding run is 400 yards long with a vertical drop of 40.2 yards. Find the angle of depression of the run.

$\sin\theta = \frac{40.2}{400}$

$\sin^{-1}\frac{40.2}{400}$

$\theta = 5.8$

The angle is 5.8°

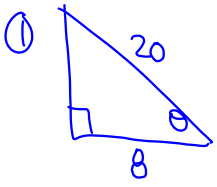
Mar 30-7:26 AM

Don't do #7

Draw the triangle.

1-10 - label the measurements

1)



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