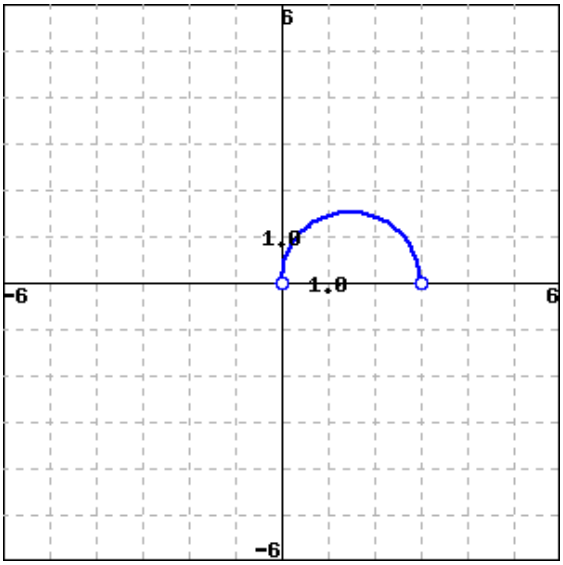
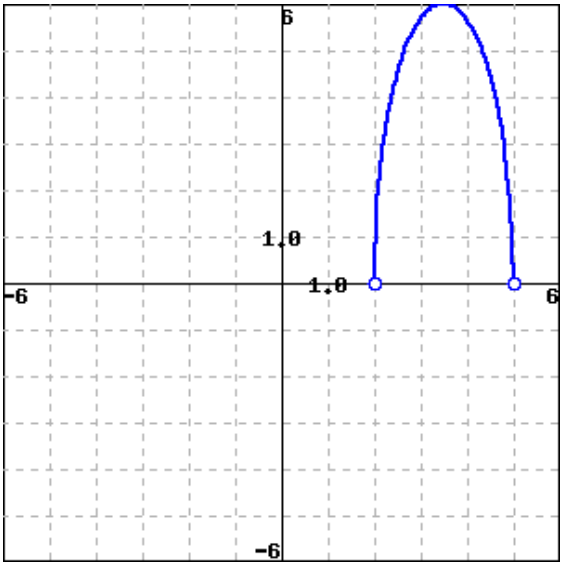
Problem 1. **(1 point)** Library/UVA-Stew5e/setUVA-Stew5e-C01S03-NewFunctOld/1-3-06.pg

The function $f(x) = \sqrt{3x - x^2}$ is given graphed below:



Note: Click on graph for larger version in new browser window.

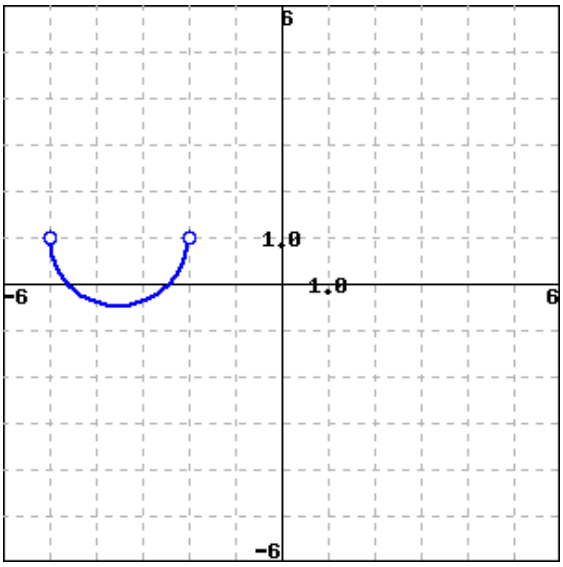
(A) Starting with the formula for $f(x)$, find a formula for $g(x)$, which is graphed below:



Note: Click on graph for larger version in new browser window.

$g(x) =$ _____

(B) Starting with the formula for $f(x)$, find a formula for $h(x)$, which is graphed below:



Note: Click on graph for larger version in new browser window.

$h(x) =$ _____

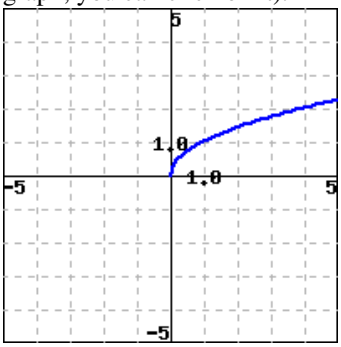
Answer(s) submitted:

-
-

(incorrect)

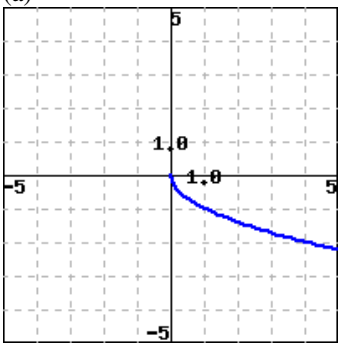
Problem 2. **(1 point)** Library/Union/setFunctionTransformations/p4.pg

The graph of $y = \sqrt{x}$ is given below: (to get a better look at the graph, you can click on it).



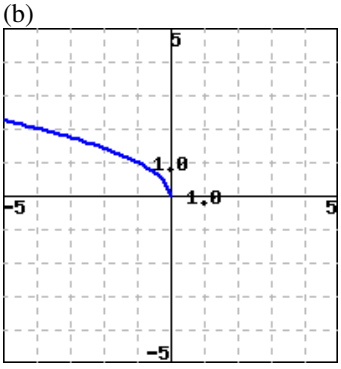
Find a formula for each of the functions whose graphs are given below. (Recall that square root is entered as sqrt.)

(a)



$y =$ _____

(b)



$y =$ _____

Answer(s) submitted:

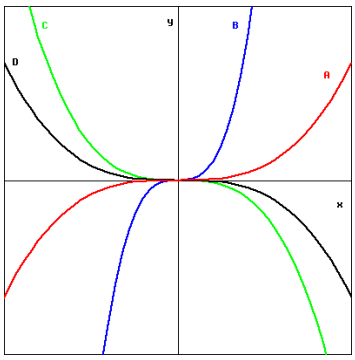
-
-

(incorrect)

Problem 3. **(1 point)** Library/LoyolaChicago/Precalc/Chap5Sec4/Q19.pg

The figure below contains the graphs of four functions $f(x)$, $f\left(\frac{1}{2}x\right)$, $f(-2x)$, and $f\left(-\frac{1}{2}x\right)$.

Identify which graph A-D is paired with each of the four functions by entering the correct letter in the answer box beside each expression.



(click on image to enlarge)

(a) $f(x)$ is graph ___ (enter a letter A-D)

(b) $f\left(\frac{1}{2}x\right)$ is graph ___ (enter a letter A-D)

(c) $f(-2x)$ is graph ___ (enter a letter A-D)

(d) $f\left(-\frac{1}{2}x\right)$ is graph ___ (enter a letter A-D)

Answer(s) submitted:

-
-
-
-

(incorrect)

Problem 4. **(1 point)** Library/LoyolaChicago/Precalc/Chap5Sec3/Q04.pg

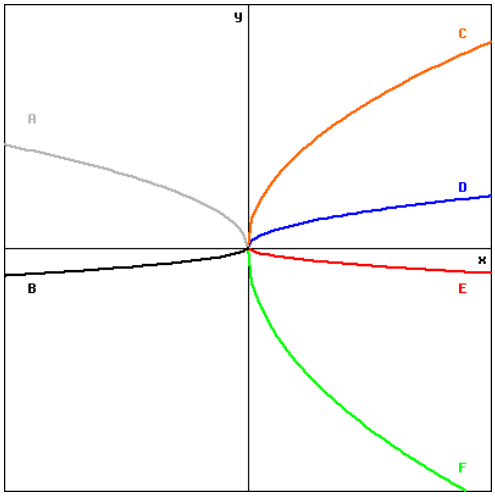
Let $f(x) = \sqrt{x}$. On a piece of paper, graph and label each function listed below. Then, match each formula with its graph.

? $f(x)$

? $4f(x)$

? $-\frac{1}{2}f(x)$

? $-5f(x)$



(Click on graph to enlarge)

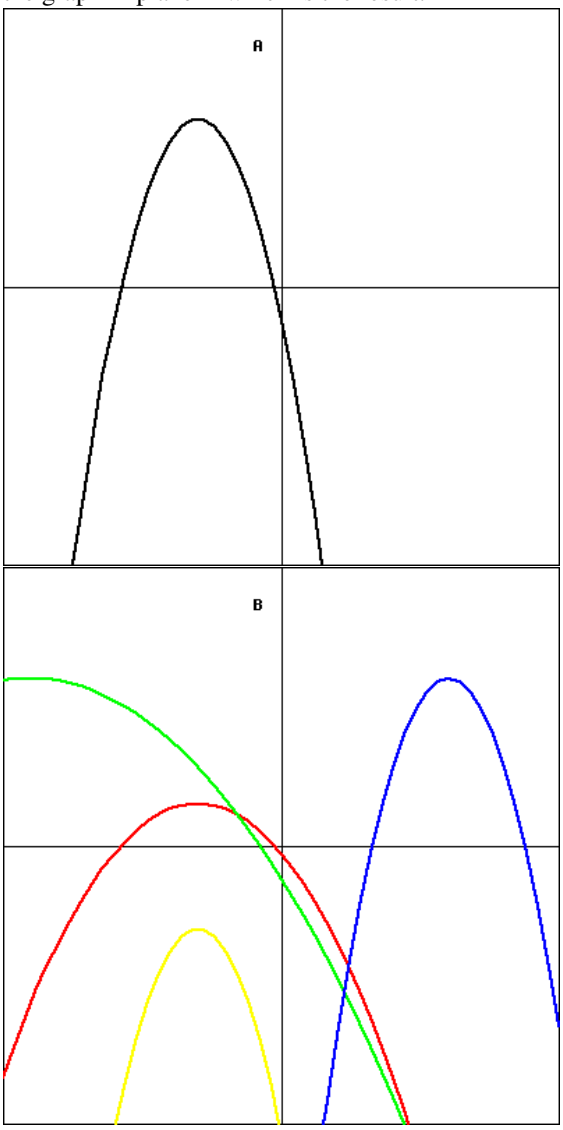
Answer(s) submitted:

-
-
-
-

(incorrect)

Problem 5. **(1 point)** Library/Rochester/setAlgebra19FunTransforms/ur_fn_3_5.pg

Each of the four graphs in plane B below comes from the original graph in plane A via exactly one transformation. Match each transformation of the original graph in plane A with the color of the graph in plane B which is the result.



Important!! You only have 3 attempts to get this problem right!

___1. Shift Right
___2. Stretch Horizontally
___3. Shrink Vertically
___4. Shift Down

A. yellow
B. blue
C. green
D. red

Answer(s) submitted:

-

-
-
-

(incorrect)

Problem 6. **(1 point)** Library/ASU-topics/setTransformationFunctions/srw2_5_15.pg

Enter left, right, upward, downward, stretching or shrinking.
(a) The graph of $f(x) = (x+24)^2$ can be obtained from shifting the graph of $f(x) = x^2$ to the _____ 24 units.
(b) The graph of $f(x) = x^2 + 24$ can be obtained from shifting the graph of $f(x) = x^2$ _____ 24 units.
(c) The graph of $f(x) = 24\sqrt{x}$ can be obtained by _____ the graph of $f(x) = \sqrt{x}$ vertically by a factor 24.
(d) The graph of $f(x) = \sqrt{24x}$ can be obtained by _____ the graph of $f(x) = \sqrt{x}$ horizontally by a factor $\frac{1}{24}$.

Answer(s) submitted:

-
-
-
-

(incorrect)

Problem 7. **(1 point)** Library/ASU-topics/setTransformationFunctions/srw2_5_23.pg

Given $f(x) = |x|$, after performing the following transformations: shift to the left 88 units, shrink vertically by a factor of $\frac{1}{73}$, and shift downward 35 units, the new function $g(x) =$ _____
Use abs(x) for $|x|$.
Answer(s) submitted:

-

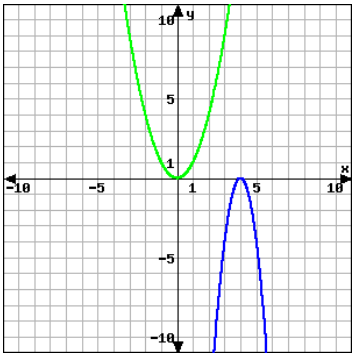
(incorrect)

Problem 8. **(1 point)** Library/Mizzou/Algebra/graph_transformations/mc_quad_hshift_vreflstrshrrandom.pg

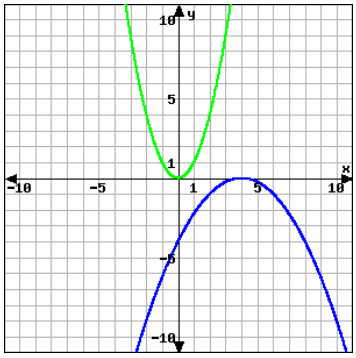
Use transformations to determine which graph below represents the equation

$$y = -\frac{1}{4}(x-4)^2$$

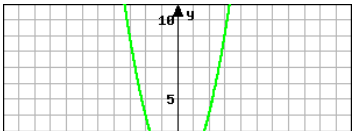
transformed from $y = x^2$. The original function is graphed in green and the transformed function is graphed in blue.

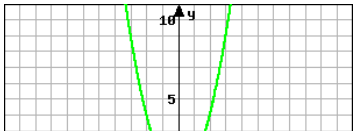


A



B





Problem 9. **(1 point)** Library/WHFreeman/Rogawski_Calculus_Early_Transcendentals_Second_Edition/1_Precalculus_Review/1.1_Real_Numbers_Functions_and_Graphs/1.1.71.pg

Suppose that $f(x)$ has a domain of $[10,16]$ and a range of $[3,14]$. What are the domain and range of:

(a) $f(x)+2$ **Domain** _____ **Range** _____

(b) $f(x+2)$ **Domain** _____ **Range** _____

(c) $f(2x)$ **Domain** _____ **Range** _____

(d) $2f(x)$ **Domain** _____ **Range** _____

Answer(s) submitted:

-
-
-
-
-
-
-
-

(incorrect)

Problem 10. **(1 point)** Library/Union/setTrigGraphs/p4.pg

Find the equation of a sine wave that is obtained by shifting the graph of $y = \sin(x)$ to the right 8 units and downward 6 units and is vertically stretched by a factor of 2 when compared to $y = \sin(x)$.

$y =$ _____
Answer(s) submitted:

-

(incorrect)

Problem 1. **(1 point)** Library/Rochester/setAlgebra02ExponentsRadicals/srw1_2_3.pg

Evaluate the expression $4^{-3}5^2$.

_____

[NOTE: Your answer cannot be an algebraic expression.]
Answer(s) submitted:

-

(incorrect)

Problem 2. **(1 point)** Library/Rochester/setAlgebra02ExponentsRadicals/sw1_3_25.pg

The expression

$$\frac{(6y^3)^5}{4y^4}$$

equals cy^e where
the coefficient c is _____, the exponent e of y is _____.
Answer(s) submitted:

-
-

(incorrect)

Problem 3. **(1 point)** Library/FortLewis/Algebra/6-1-Exponent-rules/MCH1-6-1-36-Exponent-rules.pg

Rewrite the following using a single exponent.

$\frac{7^a 7^a}{49^b} = 49^x$ for $x =$ _____ help (formulas)
Answer(s) submitted:

-

(incorrect)

Problem 4. **(1 point)** Library/FortLewis/Basic-skills-pretest/Skill-Assessment-06.pg

Evaluate: $\left(\frac{-4^3}{-2^3}\right)^2 =$ _____

Note: Your answer should be completely simplified. Unsimplified answers will not be accepted.
Answer(s) submitted:

-

(incorrect)

Problem 5. **(1 point)** Library/CollegeOfIdaho/setAlgebra_01_06_Exponents/16IntAlg_28_Exponents.pg

Simplify the expression:

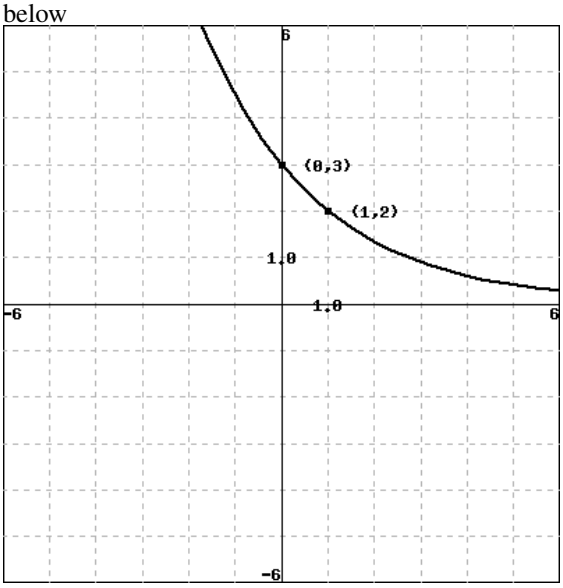
$(4x^2)(-2x^{-6}) =$ _____
Answer(s) submitted:

-

(incorrect)

Problem 6. **(1 point)** Library/Rochester/setAlgebra28ExpFunctions/ur_le_1_5.pg

Find the exponential function $f(x) = a \cdot 2^{bx}$ whose graph is shown below



$a =$ _____
$b =$ _____
Answer(s) submitted:

-
-

(incorrect)

Problem 7. **(1 point)** Library/UCSB/Stewart5_1_5/Stewart5_1_5_15.pg

Find the domain of each function. If the answer is all real numbers, enter "r" below.

(a) $f(x) = \frac{1}{1+e^x}$
(b) $f(x) = \frac{1}{1-e^x}$

(a) $x =$ _____
(b) $x \neq$ _____
Answer(s) submitted:

-
-

(incorrect)