

Algebra 1 FER #3
Fall 2015

Name _____

Period _____

SHOW ALL WORK FOR CREDIT AND BOX YOUR ANSWER

1) Systems of equations word problems (Skill #22)

a) Sean has a total of 22 quarters and dimes. If the total value of his coins is \$4.00, **how many quarters and how many dimes does he have?**

Define the variables:

x =

y =

Set up two equations in terms of x and y:

Solve using either substitution or elimination method.

Number of quarters =

Number of dimes =

b) A plane flew from San Diego to Portland, which is 600 miles away. With a headwind, the trip took 3 hours. The return trip with a tailwind took 2 hours. **Find the speed of the plane and the speed of the wind.**

Define the variables:

x =

y =

Set up two equations in terms of x and y:

Flying in to headwind:

Flying with tailwind:

Solve using either substitution or elimination method.

Speed of plane =

Speed of wind =

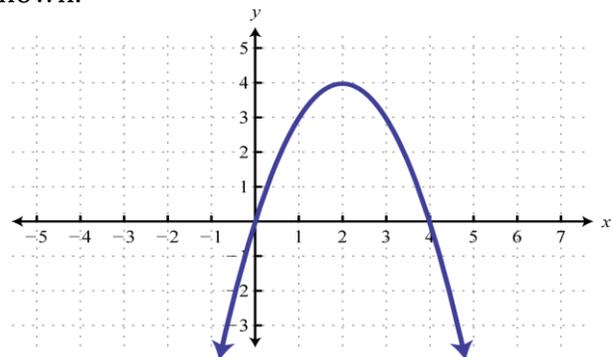
2) Function Notation and Domain and Range (Skill #23, 25)

a) If $f(x) = 2x^2 + 5x$, find :

$f(2) =$

$f(-4) =$

b) Determine the domain and range for the graph shown.



Domain:

Range:

3) Arithmetic Sequences (Skill #26)

Given an arithmetic sequence with $a_1 = 12$ and a common difference of -3 :

a) Write the first 5 terms of the sequence.

b) Write the equation for the sequence in slope-intercept form.

4) Statistics (Skill #27, 28)

Given the following quiz scores:

14, 58, 58, 60, 68, 68, 70, 74, 76, 80

a) Compute the 5-number summary.

Minimum =

Q1=

Median =

Q3=

Max=

b) Are there any outliers? If so, which scores are outliers?

b) Draw a box plot

c) Calculate the mean.

d) Which is a better measure of center for this data, mean or median?

Why?