Math 2 Makin’ Money

After all your hard work learning this quadratic stuff, it’s time to earn some cash. Each problem below is worth a certain amount of money. You may select any problems to do, but you must meet two requirements:

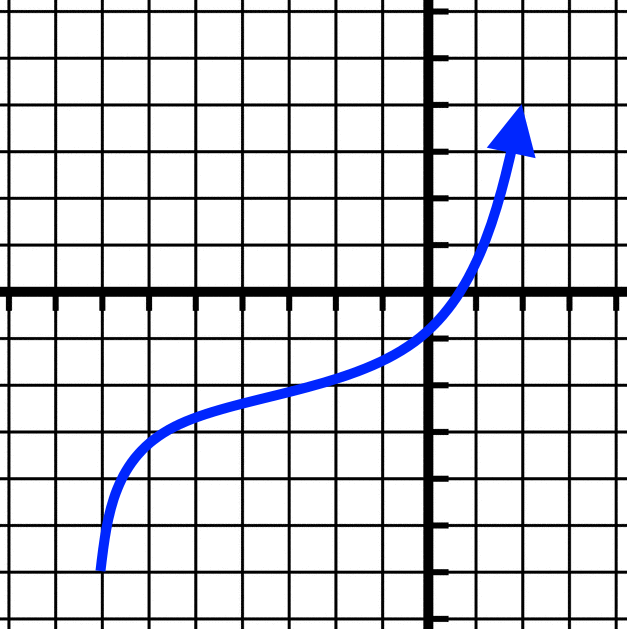
1: Do *at least* one problem from each level.

2: You must make *at least* $20.00 worth of problems.

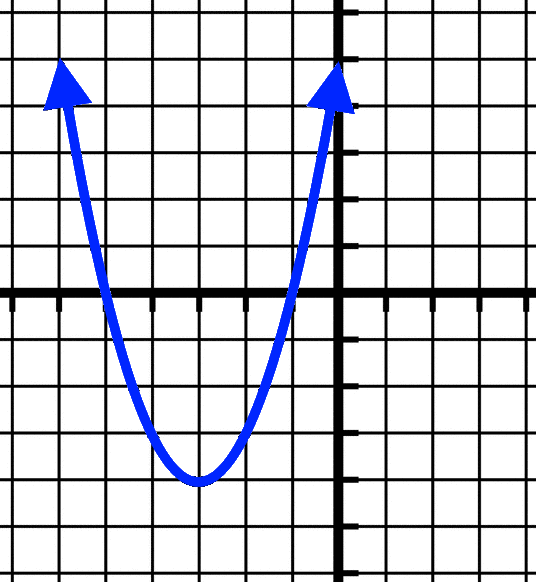
Please clearly show all work on a scratch sheet of paper. Number each problem you choose to do and write the dollar value of the problem beside it. When you have completed $20.00 worth of problems, show the boss to redeem your paycheck.

**Level 1:** $1.00

1a) Identify the Domain and Range from the graph of the function below.

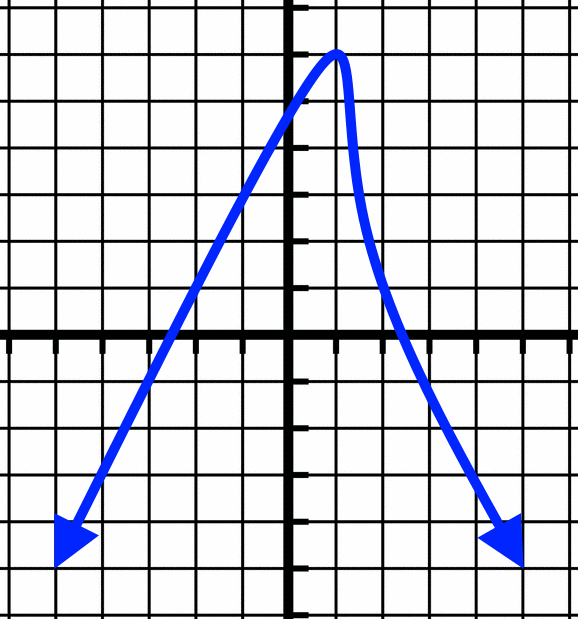


1d) Write the equation for the parabola shown in the graph below in *vertex form*.



1g) Factor the following quadratic expression:

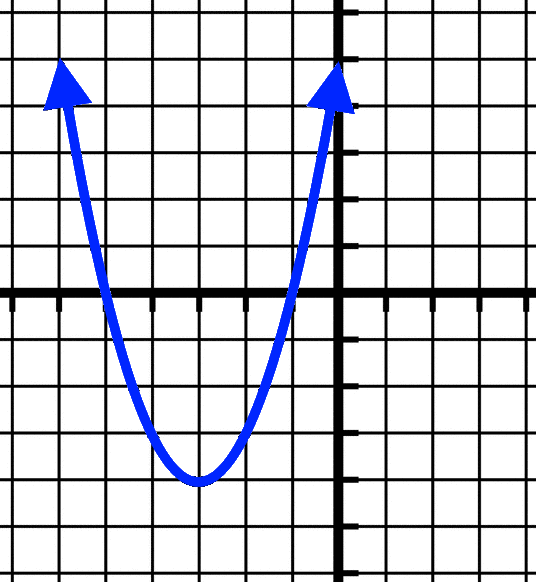
1b) Identify the Domain and Range from the graph of the function below.



1e) What are the coordinates of the vertex given by the equation:

1h) Write an equation of a quadratic in *vertex form* that has both a reflection and a shift to the right.

1c) Write the equation for the parabola shown in the graph below in *factored form*.

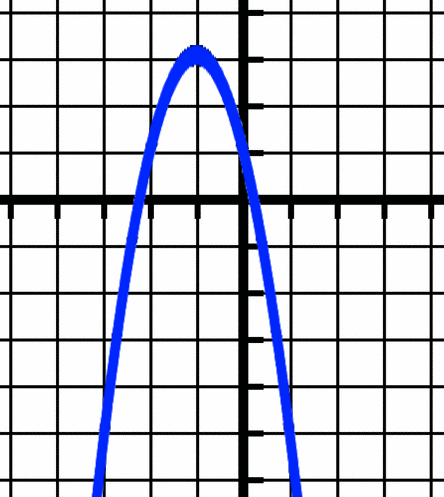


1f) List the transformations given by the equation:

1i) Write an equation of a quadratic in *vertex form* that has vertical stretch by a factor of 3 and a shift up 5.

**Level 2:** $3.00

2a) Write the equation for the parabola shown in the graph below in *vertex form*.



2d) Convert the following quadratic equation from *vertex form* into *standard form*:

2b) Factor the following quadratic expression:

2e) Convert the following quadratic equation from *factored form* into *standard form*:

2c) Factor the following quadratic expression:

2f) There is a parabola with a vertex at and root at . Where is the other root? Explain or show a picture.

**Level 3:** $5.00

3a) Graph and give a table of characteristic points for a quadratic that has been reflected over the -axis, vertically stretched by factor of 2, and shifted up 6.

3b) Write the *standard form* equation for a parabola that crosses the -axis at and .

3c) Convert the following quadratic equation from *standard form* into *factored form*: