Friendly Feud Ideas:

To review vocabulary used in Calculus

"100 mathematicians were surveyed. The top 10 answers are on the board."

"What is another word, symbol or expression for the slope of a line or curve?"

"Given this equation, what do you know about its graph?"

"What is another word, symbol or expression for the slope of a line or curve?"

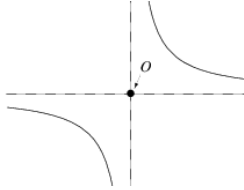| |
|---|
| $$\frac{rise}{run}$$ <div align="right">5</div> |
| $$\frac{dy}{dx}$$ <div align="right">7</div> |
| *Gradient* <div align="right">5</div> |
| *m* <div align="right">5</div> |
| *Rate of change of y with respect to x* <div align="right">17</div> |
| $$\frac{change\ in\ y}{change\ in\ x} = \frac{\Delta y}{\Delta x}$$ <div align="right">14</div> |
| $$m = \frac{y_2 - y_1}{x_2 - x_1}$$ <div align="right">10</div> |
| *f'(x)* <div align="right">8</div> |
| *The Derivative* <div align="right">14</div> |
| *Tangent* <div align="right">15</div> |

To review some of the vocabulary used in calculus

"Given this equation, what do you know about its graph?"

$$y = \frac{2}{(x-4)} + 6$$

To review common graphs and their transformations.

It looks like:

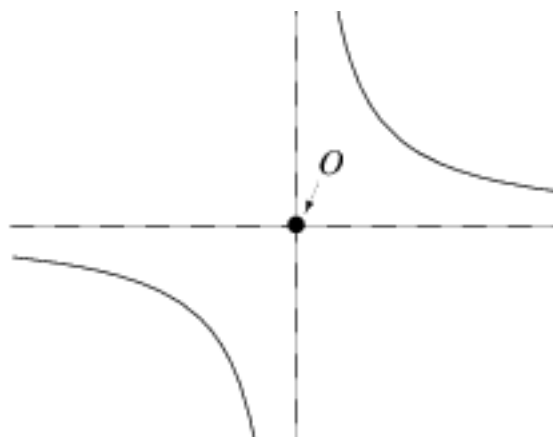|	
Its general shape is called a hyperbola	5
There is an asymptote at y = 6	15
The standard graph is translated 4 units to the right	15
The graph is dilated by a factor of 2 in the y direction or from the x axis	15
The graph is translated 6 units up	15
The y intercept is 5 ½	20
There is an asymptote at x = 4	15

Its general shape is called a hyperbola

It looks like this:

5

There is an asymptote at y = 6

15

The standard graph has been translated 6 units up (in the y direction)

15

There is an asymptote at x = 4

15

The standard graph has been translated 4 units to the right

15

The standard graph has been dilated by a factor of 2 in the y direction (away from the x axis)

15

The y intercept is at y = 5 ½

20

"Given this equation, what do you know about its graph?"

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

This is a parabola   5

It is "upside down" or reflected in the x axis   5

The general curve has been translated 4 units down 10

Translated 2 units to the left   10

The turning point is at (-2, -4)   14

This is wider than the standard parabola   13

This has been dilated by a factor of ½ away from the x axis   14

When x = 0, y = -6 (y intercept is at (0, -6)   14

The graph has no x intercepts   15

This is a parabola

5

The turning point is at (-2, -4)

14

The parabola is "upside down" Or reflected in the x axis   **5**

The parabola has no x intercepts

15

The general curve is dilated by a factor of ½ from the x axis.

14

The curve is wider than the standard curve

13

When $x = 0$, $y = $ -6
The y intercept is
at $y = $ -6

14

The standard curve
has been
translated 4 units
down.   **10**

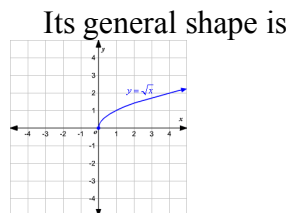The standard curve has been translated 2 units to the left.

10

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

"Given this equation, what do you know about its graph?"

To review common graphs and their transformations.

$$y = -\sqrt{(x-4)} + 6$$

It looks like:

Its general shape is   15

The standard graph is reflected in the x axis.   10

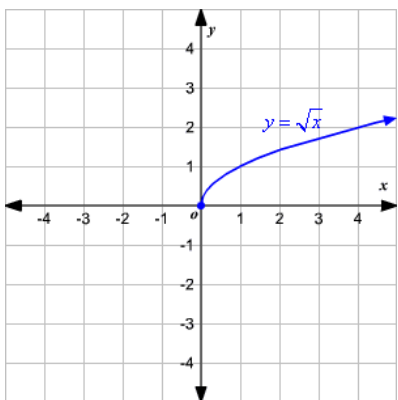The end point is at (4, 6)   20

The standard graph is translated 4 units to the right   13

The standard graph is translated 6 units up   12

The x intercept is at x = 40   30

This is a sideways parabola

15

The end point
is at
(4, 6)

20

The standard
graph is
reflected in the
x axis   **10**

The x intercept is at

$x = 40$

30

The standard curve has been translated 6 units upwards.
12

The standard curve has been translated 4 units to the right.

13

$$y = -\sqrt{(x-4)} + 6$$