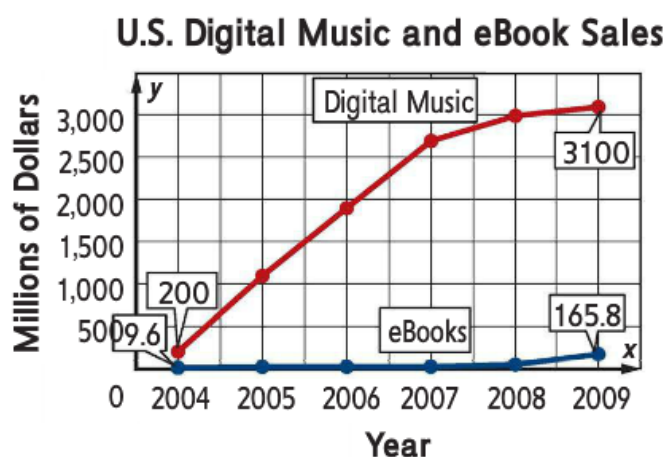
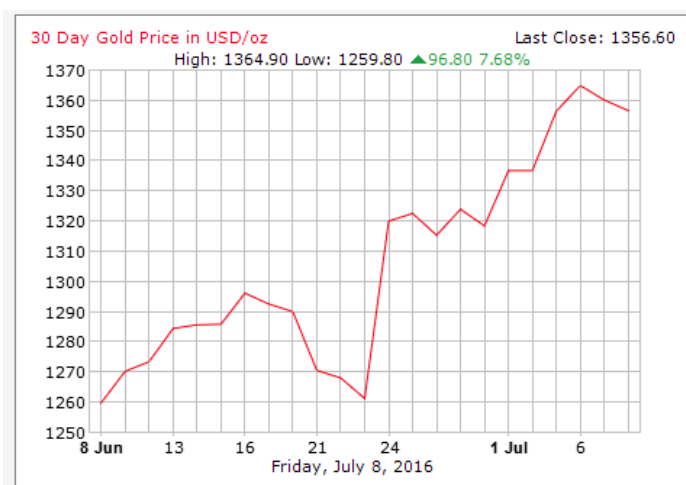


Rate of Change: _____

For many real world problems, the rate of change _____,

So it makes sense to look at: _____.

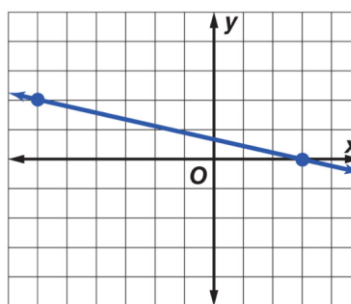
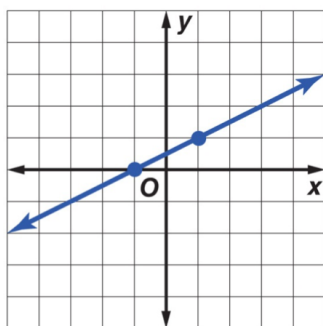
Example: The graph on the left shows the price fluctuation of gold over 30 days in 2016. The graph on the right shows the digital music and book sales from 2004 to 2009. Find the average rate of change for each graph.



Linear Functions Rate of Change & Slope

Slope - _____

A linear equation has a _____ rate of change or _____ slope.



Determine the rate of change for each linear equation. (hint: $y = mx + b$)

1) $5x - 8y = 20$

2) $33 + 7x = 3y - 7$

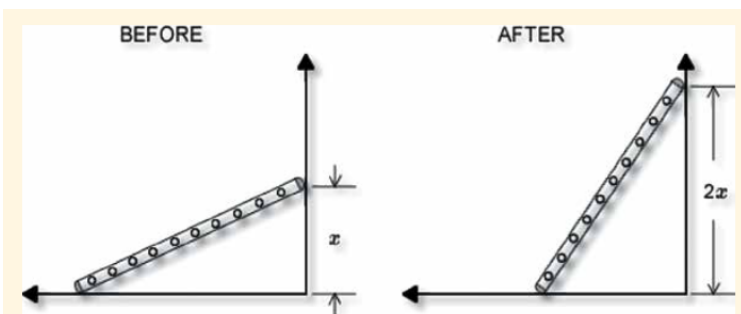
Find the value of "r" so that the line passing through the pair of points has the given slope.

3) $(4, r)$ and $(-6, 2)$ $m = 0.2$

4) $(r, -7)$ and $(0, 3)$ $m = -\frac{5}{2}$

Stretch your brain!

Draw "The Man" to remember slope.



Suppose that you have a ladder leaning against a wall. Now suppose that you adjust the slant of the ladder so that it reaches exactly twice as high on the wall, as pictured below.

The slope of the ladder is—

- (a) Less than twice what it was.
- (b) Exactly twice what it was.
- (c) More than twice what it was.
- (d) The same as what it was before.
- (e) There is not enough information to determine if any of (a) through (d) is correct.