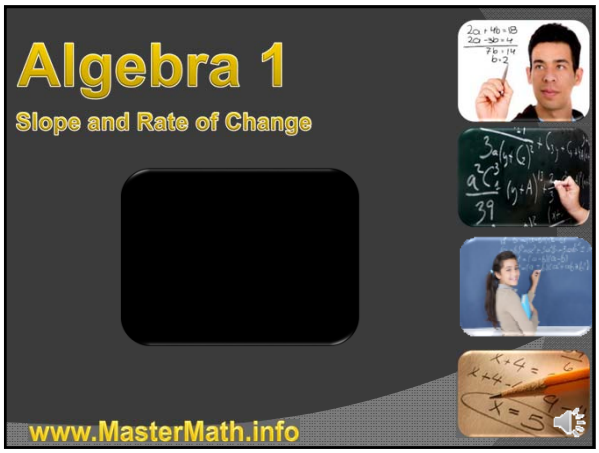
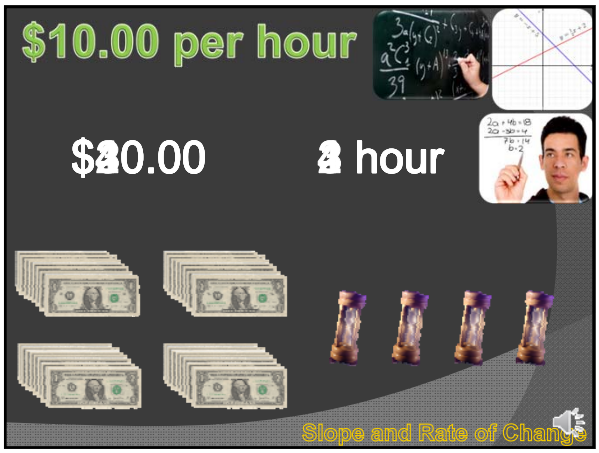
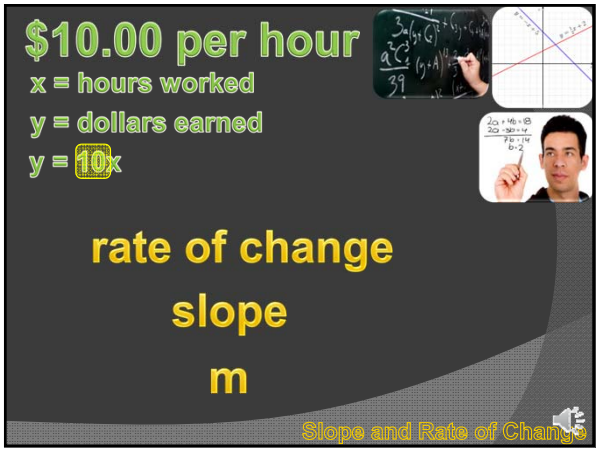
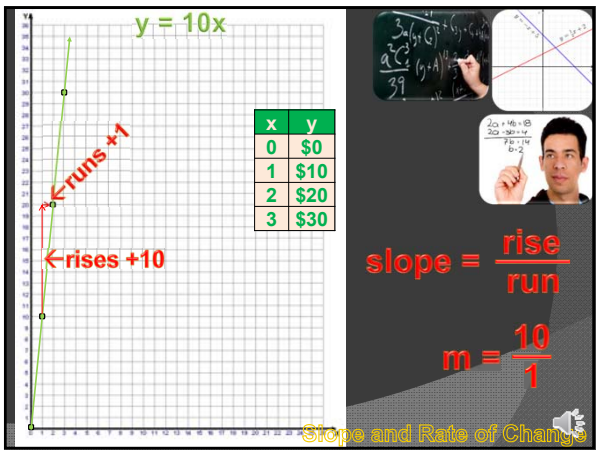

Algebra 1
Slope and Rate of Change
www.MasterMath.info

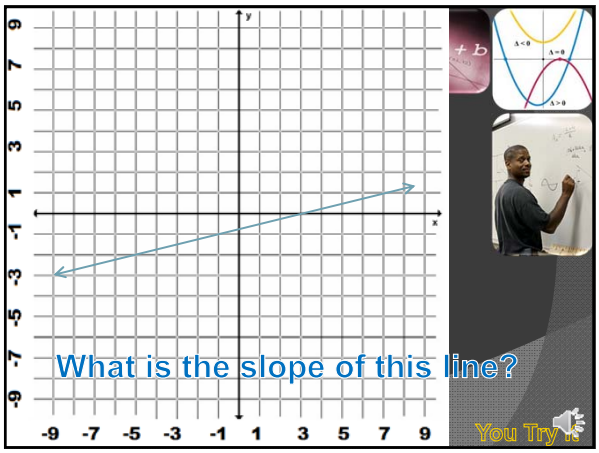

rate of change
slope
positive slope
negative slope
Overview

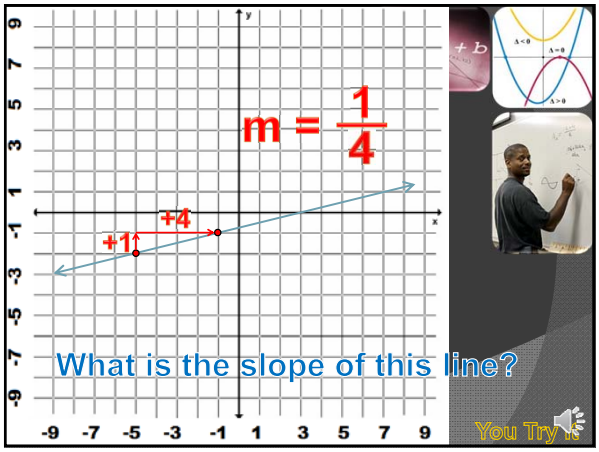

Which is true?
a. These babies are being forced to learn math
b. You have a babysitting business
Slope and Rate of Change

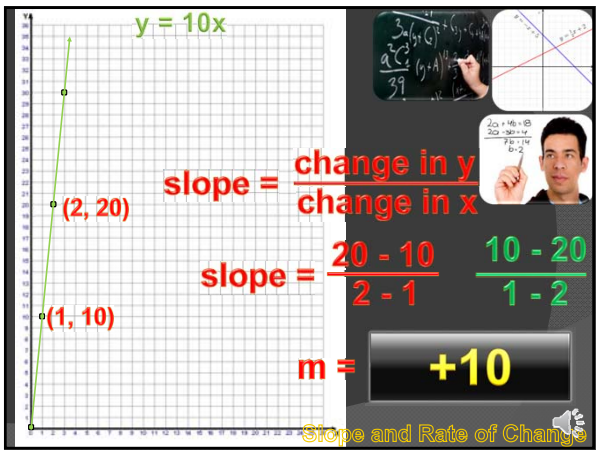

$10.00 per hour
$10.00
1 hour
Slope and Rate of Change

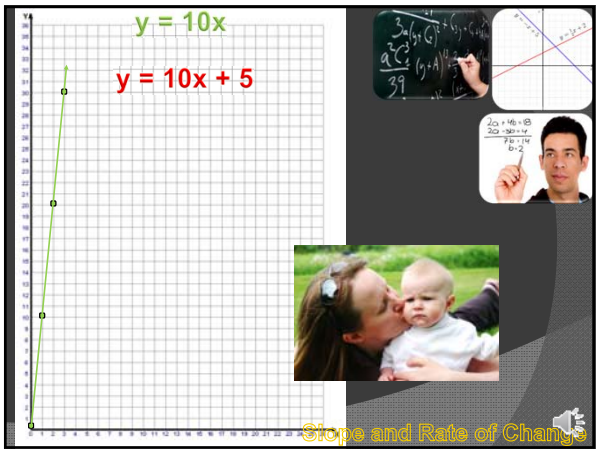

$10.00 per hour
x = hours worked
y = dollars earned
y = 10x
rate of change
slope
m
Slope and Rate of Change

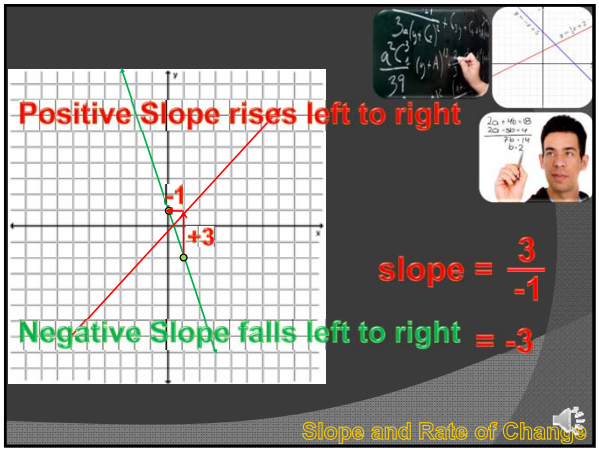

y = 10x
x y
0 $0
1 $10
2 $20
3 $30
runs +1
rises +10
slope = rise / run
m = 10/1
Slope and Rate of Change

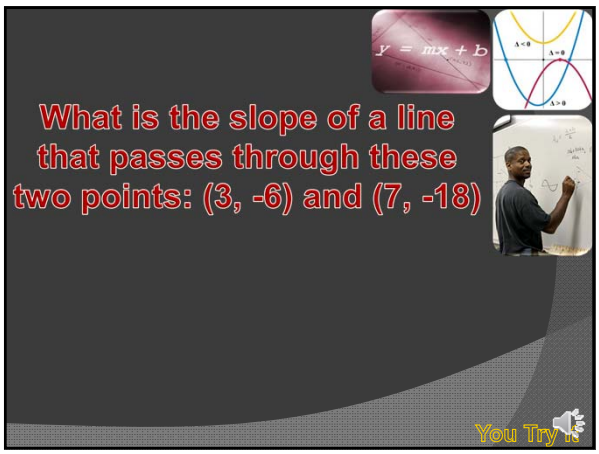

What is the slope of this line?
You Try It

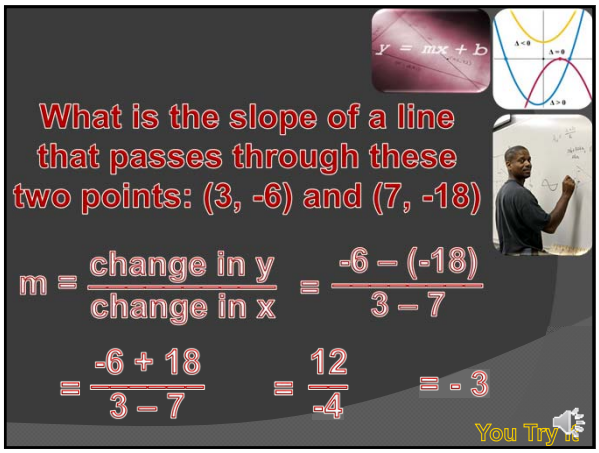

m = 1/4
+4
+1
What is the slope of this line?
You Try It

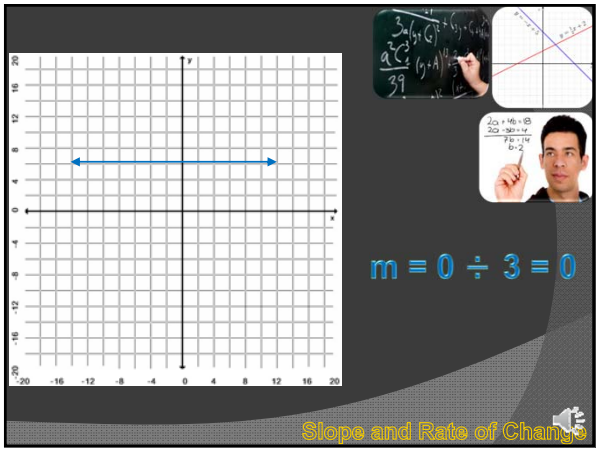

y = 10x
(2, 20)
(1, 10)
slope = change in y / change in x
slope = 20 - 10 / 2 - 1
10 - 20 / 1 - 2
m = +10
Slope and Rate of Change

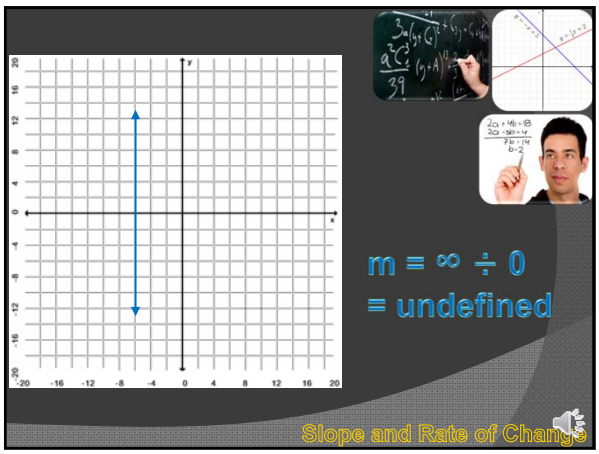

y = 10x
y = 10x + 5
Slope and Rate of Change


Positive Slope rises left to right
-1
+3
slope = 3/-1
Negative Slope falls left to right = -3
Slope and Rate of Change


y = mx + b
What is the slope of a line that passes through these two points: (3, -6) and (7, -18)
You Try It


What is the slope of a line that passes through these two points: (3, -6) and (7, -18)
m = change in y / change in x = -6 – (-18) / 3 – 7
= -6 + 18 / 3 – 7 = 12 / -4 = - 3
You Try It


m = 0 ÷ 3 = 0
Slope and Rate of Change


m = ∞ ÷ 0
= undefined
Slope and Rate of Change