

Math

# Why?

- Business school was upset that “Students were not learning anything in EC201/202”
- Showed with a test of business students
- The questions they missed were not because of econ but math.
- Tested in EC201/202
  - 25% can't add fractions
  - 50% can't solve or graph linear equation
  - 75% can't solve system of two equations and two unknowns

This is all from 9th grade or earlier.

# But ... But ...

- We can draw graphs but without the math intuition, its meaningless.
- “But I understand the theory”.
- “When will I use this?”
  - to calculate your grade
  - in your business courses  $Payment = P \frac{i(1+i)^n}{(1+i)^n - 1}$
- The computer does that for me.
  - Yes it does until you get to a certain level
  - Then you don't know enough to make the next step or find the software that will do it for you.

## In short

- We often ask you to do things that computers can do.
- It is to build up skills, i.e., train, so that you can do things computers can't.
- If you rely on the crutch while training, you will not be able to do those things that computers can't.

Driving your car 4 mph for 10 miles every day will not help you train for a marathon.

# Multiply Fractions

$$\frac{2}{3} \times \frac{3}{5} =$$

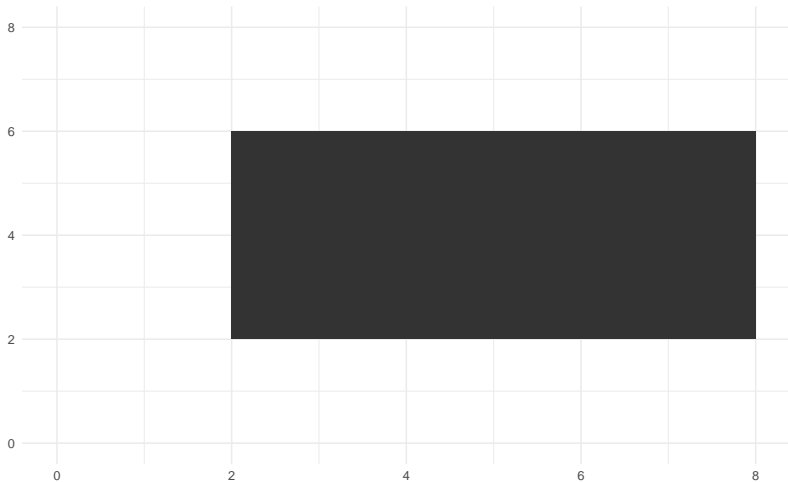
## Add some fractions

$$\frac{1}{2} + \frac{1}{4} =$$

## Another One

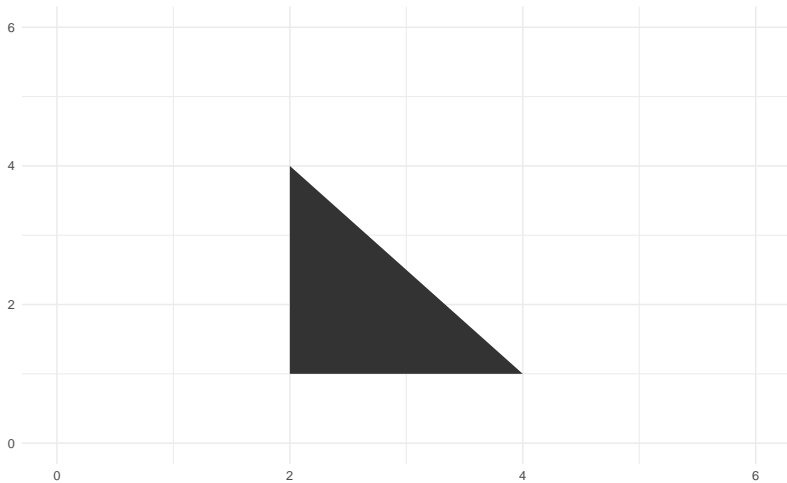
$$\frac{2}{3} + \frac{3}{4} =$$

# Area of a rectangle





# Triangle



# Percent Change

What is the percent increase from 60 to 63?

# Plot a Line

Plot

$$y = -1 + 2x$$

Solve for p

$$P = 2 + \frac{3}{4}P$$

What is the slope of this line?

$$5y + 3x = 2$$

## Solve for P and Q

$$p - 9 = 3(q - 3)$$

$$p = 20 - 2q$$