

Working with Linear Equations

Learning Goals

Getting Started

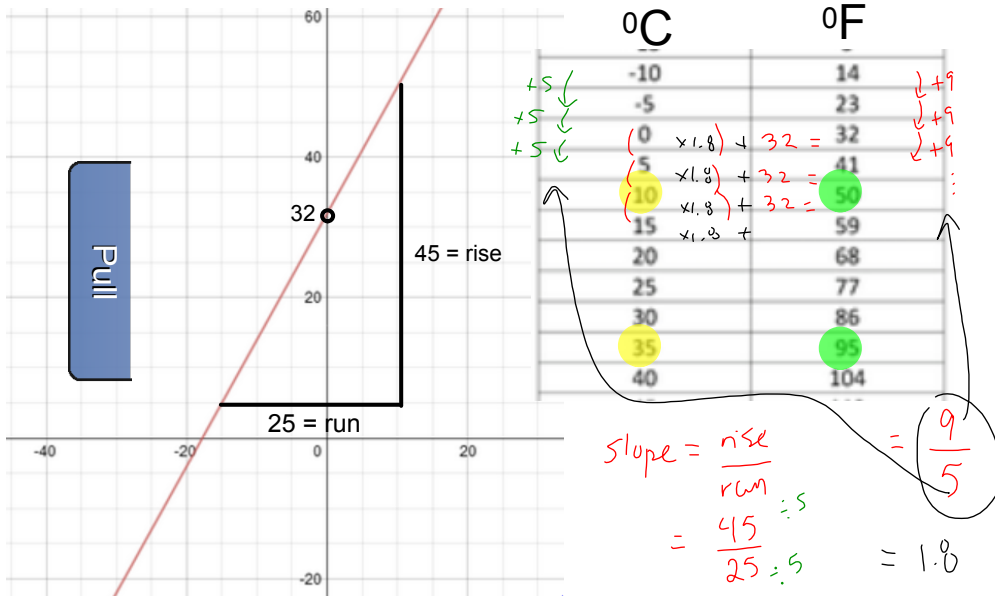
Minds on...

- a) Complete textbook problems, check a small selection of problems
- b) Conversion:

$$^{\circ}\text{F} \leftrightarrow ^{\circ}\text{C}$$

Temperature Conversion: F <--> C (Part 1)

Graph: Fahrenheit vs. Celsius



What's the relationship between degrees F and degrees C?

Temperature Conversion: F <--> C (Part 2)

i) What about an algebraic representation--an equation?

Equation:

$$F = 1.8 \times C + 32$$

$$F = 1.8C + 32$$

Note: A linear equation can have the form,
 $y = mx + b$

ii) Use your equation to convert 32° C to degrees F.

Temperature Conversion: F \leftrightarrow C (Part 3)

"On 13 September 2012 the World Meteorological Organisation disqualified the record for the highest recorded temperature, exactly 90 years after it had been established at El Azizia, Libya, with a measurement of 58 C. The official highest recorded temperature is now 56.7 C (■ F), which was measured on 10 July 1913 at Greenland Ranch, Death Valley, California, USA."

<http://www.guinnessworldrecords.com/world-records/highest-recorded-temperature/>

Accessed: Oct 8, 2015

Use your equation to convert 56.7 C to degrees F.

Temperature Conversion: F \leftrightarrow C (Part 4)

OK...How could we convert the other way--i.e., from F to C?

Pull

Working with Equations

There it is! We've just *manipulated* a linear equation to work for us.

Let's take some time to review the process of manipulating and solving equations.

These skills will support you in this course.

Attachments

Solving Equations_Puzzle Square1.pdf