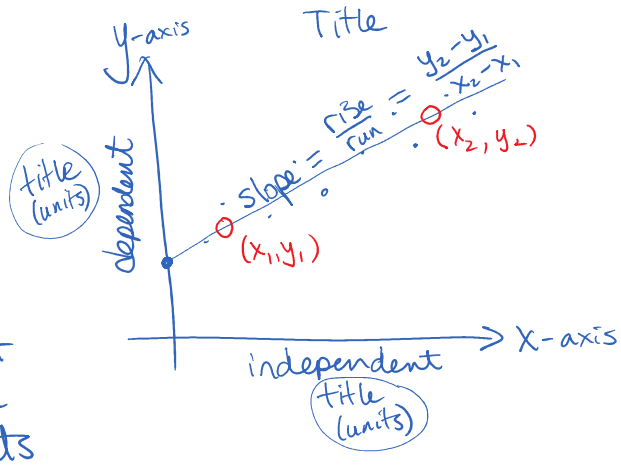
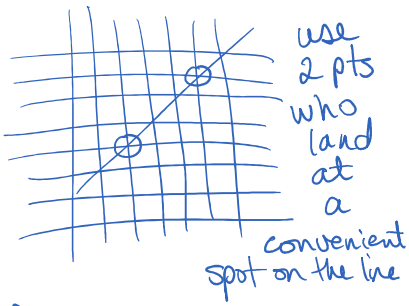
Notes: Basic Skills

# Graphs



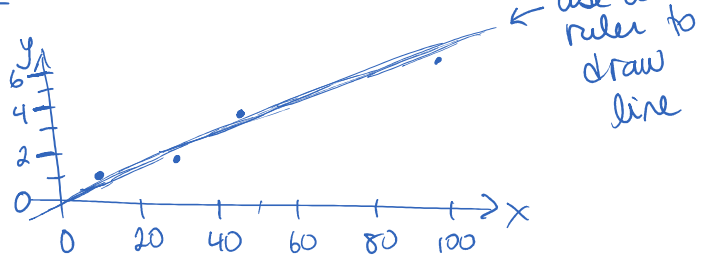

$(x_1, y_1)$ and $(x_2, y_2)$ are not points from the table of values (unless they fall exactly on the line)

- draw a best fit line, has equal spacing of points above and below the line.



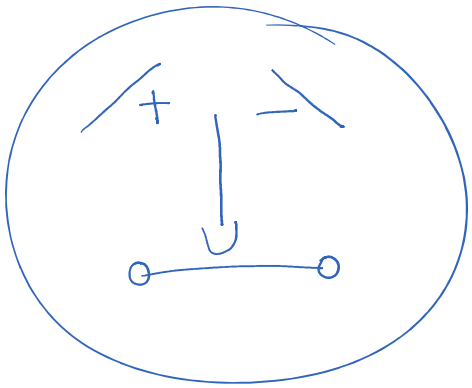

- when numbering the axis, do not use values from table of values; you should evenly space your numbers
- use most of the graph paper

| x | y |
|---|---|
| 10 | 1 |
| 30 | 2 |
| 45 | 3.5 |
| 100 | 6 |




$y = mx + b$

$m$: slope; $b$: y-intercept




# Solving

Best Friends Share Dessert

Brackets, fractions, sort, Divide

ex 1 $3(2x+2) - 4x = 2 - x$ solve for x

$6x + 6 - 4x = 2 - x$

ex1

B: $6x + 6 - 4x = 2 - x$ (−6, +x, −6, +x)

S: $2x + x = 2 - 6$

$\frac{3x}{3} = \frac{-4}{3}$

D: $x = -\frac{4}{3}$

x-terms to one side
#-terms to other

ex2 solve for "a"

F: $\left(d = v_i t + \frac{1}{2} a t^2\right) \times 2$

S: $2d = 2v_i t + at^2$

$2d - 2v_i t = at^2$ ($t^2$)

D: $\frac{2d - 2v_i t}{t^2} = a$

OR

$d = v_i t + \frac{1}{2} a t^2$

$d - v_i t = \frac{1}{2} a t^2$

$\frac{2(d - v_i t)}{t^2} = a$

ex3 $A = ?$

$a = 2$
$b = 3$
$c = 4$

$a^2 = b^2 + c^2 - 2bc \cos A$

$2^2 = 3^2 + 4^2 - 2(3)(4) \cos A$

$4 = 9 + 16 - 24 \cos A$

$4 = 25 - 24 \cos A$

$4 - 25 = -24 \cos A$

$+21 = -24 \cos A$

$+24 \quad -24$

$0.\_\_ = \cos A \longrightarrow \cos^{-1}(0.\_\_) = 29°$