Warm Up: Are the following equations in standard form? If not, make the corrections so it is in standard form.
a) $3 y-2 x+4=0$
b) $0=x-7$
c) $\frac{2}{3} x+\frac{1}{4} y=7$

U6D3
Graphing a Line Using Intercepts (6.3)
What are intercepts?

Example 1: Use the graphs below to determine the $\mathrm{x} \& \mathrm{y}$ intercepts.



## In General :

- the $x$-intercept is the value of $x$ where the line crosses the $\qquad$ (i.e. )
- the $y$-intercept is the value of $y$ where the line crosses the $\qquad$ (i.e. )

Example 2: For each line determine the intercepts and then graph the line.
a. $2 x-4 y=8$

b. $3 x+2 y-12=0$

Example 3: The graph below illustrates the value of a car from the time it was bought.

a. Identify the V intercept and explain its meaning.
b. Identify the T intercept and explain its meaning.
c. What is the slope and it's meaning?


## Example 4:

Determine the slope of each line given the intercepts. Then, write the equation of the line.
a) x intercept is 3 and y intercept is 12 .
b) $x$ intercept is 5 and $y$ intercept is -2
c) there is no $x$ intercept and the $y$ intercept is 6 .
d) $x$ intercept is -4 and there is no $y$ intercept.

