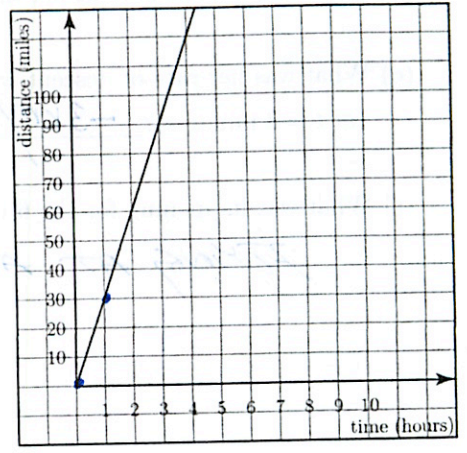


1. What is slope (the definition)?

RATIO OF CHANGE IN OUTPUT / CHANGE IN INPUT = $\frac{\Delta y}{\Delta x}$

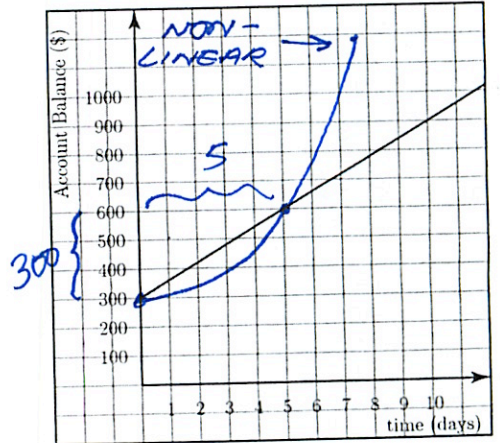
2. Find the slope of the line below. Give the units of the slope and give a situation it might describe.

$m = \frac{30 - 0}{1 - 0} = \frac{30 \text{ miles}}{1 \text{ hr.}} = 30 \text{ mph.}$
 (0,0) → (1,30)



3. Find the slope of the line below. Give the units of the slope and give a situation it might describe.

$m = \frac{\$300}{5 \text{ days}} = 60 \text{ \$/day.}$



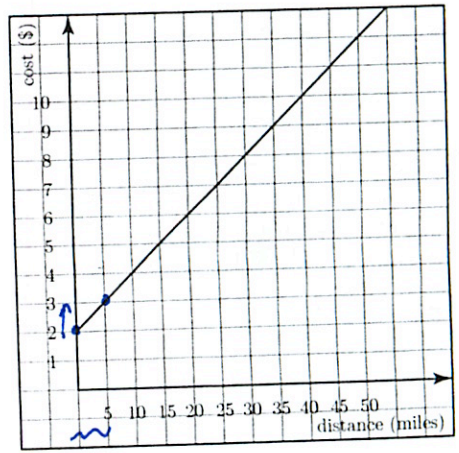
4. Use the graph below to answer these questions.

(a) What is the slope? $\frac{1}{5} \rightarrow 0.2/1$

(b) What does the slope tell you? Include units in your answer.
 FOR EVERY 5 MILES IT COSTS \$1.
 OR 20¢ PER MILE.

(c) What is the meaning of the point (0, 2)?

IT COSTS \$2 BEFORE YOU GO ANYWHERE.
 LIKE A CAB FARE.



5. Captain Dood's airplane flight is plotted below. Try to answer these questions. Be sure to include units.

(a) What is the highest she flew? 8 km

(b) How long did it take her to get there? 4 min

(c) What was her rate of climb? $\frac{8}{4} = 2 \text{ km}/1 \text{ min} = 2 \text{ km}/\text{min}$

(d) How long did she stay at her highest? 4 min

(e) What was her rate of descent when she started coming down
(at $t = 8$ minutes)? $-\frac{3 \text{ km}}{4 \text{ min}} = 0.75 \text{ km}/\text{min}$

(f) What was happening for the 6 minutes between $t = 12$ and $t = 18$?

FLYING AT A CONSTANT ALTITUDE.

