

Name: _____

The distance in meters that a four person ski lift travels in x seconds is represented by the equation $y=2.5x$.

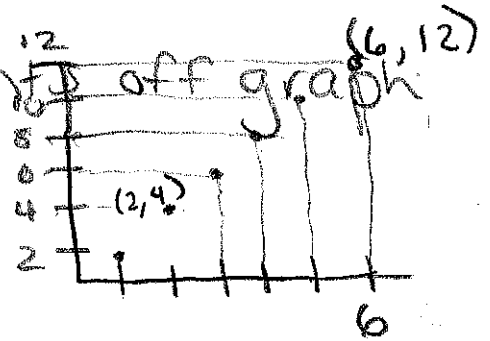
Sec (x)	0	1	2	3	4
$y=2x$ Dist 2 ski	0	2	4	6	8
$y=2.5x$ Dist 4 ski	0	2.5	5	7.5	10

The following graph shows the distance that a two person ski lift travels.

* Take slope from graph

* pull points off graph

$$\frac{12-4}{6-2} = \frac{8}{4} = 2$$



a) Which ski lift is faster? Defend your answer in TWO WAYS.

4 person \rightarrow steeper slope

Graph \rightarrow 4 person is faster

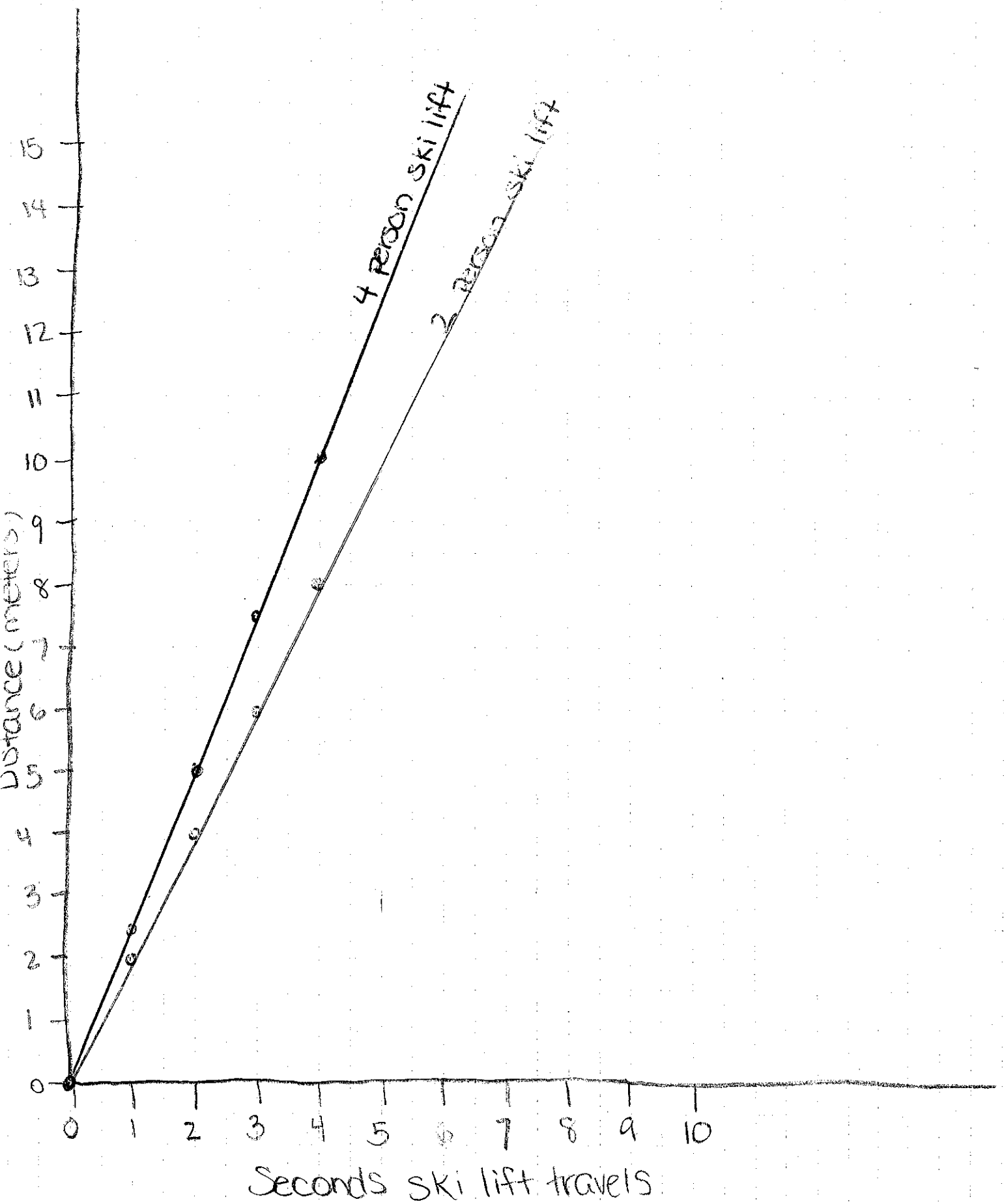
Chart \rightarrow 4 person is faster

b) Graph the two ski lift distances over time on graph paper.

Don't forget:

- A title
- Label the axes
- Label your lines

Distance vs Seconds on Ski Lift



You babysit for \$11.50 per hour. Your friend pet sits and makes the amount outlined by the table below.

	Hours	3	6	9	10	11
\$11.80	Total Friend	\$35.40	\$70.80	\$106.20	\$118	\$129.80
\$11.50	Total You	\$34.50	\$69	\$103.50	\$115	\$126.50

a) Who makes more per hour? Defend your answer in TWO WAYS.

Your friend, they make \$11.80/hr

$y = 11.80x$ ← Friend has a steeper slope

$y = 11.50x$

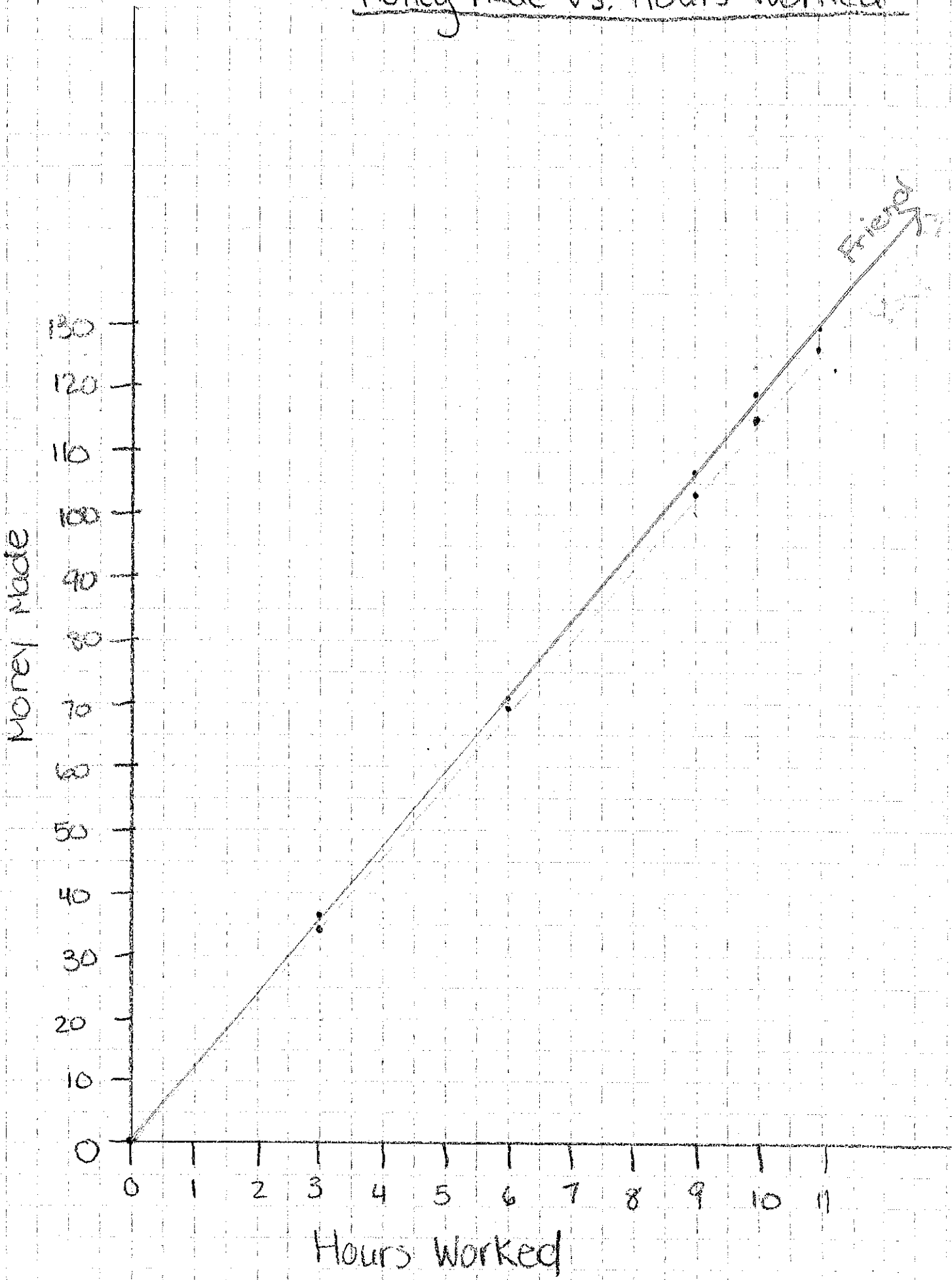
* data in table shows your friend makes more \$

b) Graph both wages over time on graph paper.

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Money Made vs. Hours Worked



Different breeds of puppies grow at different rates. The Yorkshire terrier gains 5 ounces per month and will be full grown at the end of a year. A Chihuahua grows at the rate outlined by the table

Chihuahua	Weeks	4	8	10	
	Pounds	2 $\times 16$	4 $\times 16$	5 $\times 16$	

Which breed will grow faster? Defend your answer in TWO WAYS.

① Convert everything to the same unit

Chihuahua \rightarrow convert pounds to ounces ($16 \text{ oz} = 1 \text{ lb}$)
 \rightarrow keep weeks in weeks
 (+ multiply by 16)

Weeks	4	8	10	12	1
Chihuahua oz	32	64	80	96	$32/4 = 8 \text{ oz/week}$
Yorkie oz	5	10	12.5	15	$5/4 = 1.25 \text{ oz/week}$

Yorkie \rightarrow divide 5 oz by 4 to get oz/week

Graph both breeds' rate of growth over time on a sheet of graph paper.

Chart shows a chihuahua grows faster over time

8 oz vs 1.25 oz

Equations: $y = 8x$ Chihuahua

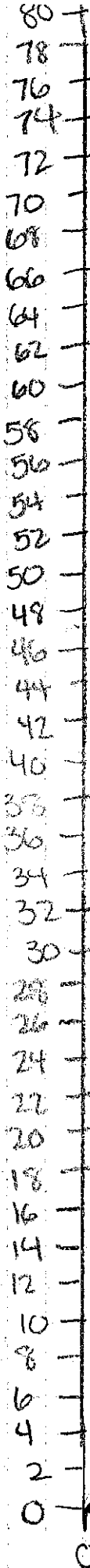
$y = 1.25x$ Yorkie

Chihuahua has a greater slope which means it increases faster.

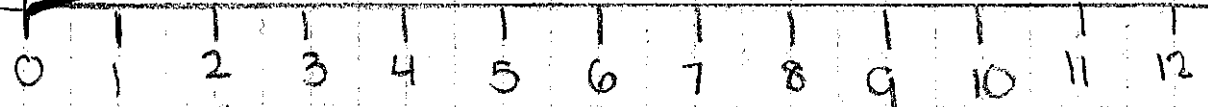
Ounces Grown vs.
of weeks

Chihuahua

of ounces



of weeks



Yorkie

