Name: KEY

Section 2.2b – Slope and Rates of Change – Proficiency Check

What is the slope of the lines given the following parameters.

Goes through the points: $(4,-2)$ *and* $(6,7)$	Goes through the points: $(9,4)$ *and* $(-6,5)$	Goes through the points: $(4,-2)$ *and* $(4,7)$
$\frac{y_2-y_1}{x_2-x_1}$ $\frac{7-(-2)}{6-4} = \frac{9}{2}$	$\frac{5-4}{-6-9} = \frac{1}{-15}$	$\frac{7-(-2)}{4-4} = \frac{9}{0}$ undefined

What is the rate of change described in the following scenarios. Remember, the units tell the story.

I read 45 pages in 20*mins* and 205 pages in an hour. Assuming a constant rate, how many pages do I read per minute?	For seven hours of work I make \$116.90. How much do I make an hour?	My car was worth \$15 450 when I bought it new. Seven years later it was worth \$4675. Assuming a constant rate, what is the depreciation rate per year?
1 hr = 60 min pages/min $\frac{205-45}{60-20}$ $\frac{160}{40} = \frac{16}{4}$ 4 pages/min	\$/hr $\frac{116.90}{7}$ \$16.70/hr	\$/yr (0, 15450) (7, 4675) $\frac{15450-4675}{0-7}$ $\frac{10775}{-7} = -1539.29$ \$/hr