

Section 2.3

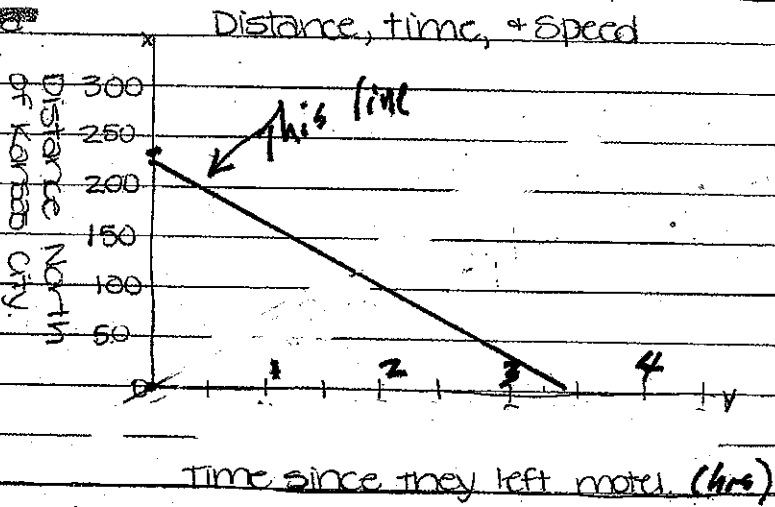
31) $I = \text{interest rate } 8.6\% = .086$

$P = \text{monthly payment}$

I	P	Slope: $144 = X$
.08	734	$.02 \cdot .006$
.086	777.20	$.02X = .864$
.10	878	$X = 43.2$

The estimated monthly payment on a mortgage loan that carries an interest rate of 8.6% is \$777.20

32)



$D \sim 65T - 225$
 $0 \sim 65T - 225$
 $225 \sim 65T$
 $T \sim 3.5 \text{ hours}$
 After about 3.5 hours on the road they will reach Kansas City.

let D : distance north of Kansas City
 T : time since leaving the motel

$D \sim 65T - 225$

The equation for their distance north of Kansas City is $D \sim 65T - 225$.

Section 2.4

42) Total expenses:	\$46,000	\$40,000 (E)
Passengers:	230	80 (P)
$(230, 46000)$	Slope: $\frac{46000 - 40000}{230 - 80} = \frac{6000}{150} = \40 per perso	
$(80, 40000)$		
$80 \times 40 = \$3200$ - cost for all passengers		
$40000 - 3200 = \$36800$ - cost to fly w/out passengers		

$a: E = 40P + 36800$
 Let $E = \text{expenditure}$
 $P = \text{passengers}$

The equation for the airline's total expenditure in relation to the number of passengers is $E = 40P + 36800$.