

## 223 Homework #5 Key

①

1a.  $y = -0.82x + 257.86$

b.  $r = 0.9517$

c.  $r^2 = 0.9058$

d. the trendline in the data is downward as  $x$  increases

e. Strong

f. 90.6%

g.  $y(210) = \$85.66$  sales

h.  $y(150) = \$134.86$

$y(400) = \$-70.14$

i. the sales for \$150,000 is at least possible, but sales cannot be negative so the predicted value for \$400,000 is implausible.

j.  $y = -0.87x + 265.25$

$r^2 = .9918$   $r = -.9958$

the correlation improved alot. if this was my data set, I would check the data to see if its a hypo. However, it does not dramatically affect the slope and intercept so I would not omit it.