

Amazon Stock Price Exercise Name: KEY

Day #	(\$)
1	x
2	\$1,517.00
3	\$1,539.00
4	\$1,575.99
5	\$1,613.92
6	y
7	\$1,679.50
8	\$1,769.46
9	z

1. Use linear regression to estimate the missing values x, y, and z.

(a) Do this problem on your TI calculator.

Regression Line Equation:  $y = 40.18142857x + 1421.601429$

Correlation Coefficient:  $0.9821021481$

$x = \underline{1461.8}$   $y = \underline{1662.7}$   $z = \underline{1783.2}$

(b) Do this problem using Desmos.

Regression Line Equation:  $y = 40.1814x + 1421.6$

Correlation Coefficient:  $0.9821$

$x = \underline{1461.7829}$   $y = \underline{1662.69}$   $z = \underline{1783.2343}$

2. What makes your "line of best fit" above the BEST FITTING choice? Be specific.

The sum of squared residuals is as small as possible for this data set.

3. In the example above,

(a) you use INTERPOLATION to find which value(s)? y

(b) you use EXTRAPOLATION to find which value(s)? x and z