

Name _____

Period _____

Quadratic Regression

Advertising Expense vs. Revenue in thousands

Advertising (thousands)	Revenue (thousands)
20	6,101
22	6,222
25	6,350
27	6,453
29	6,360
31	6,231

1. What is the equation? (Round to tenths)
y = _____
2. What is revenue when advertising is... (Round to the nearest integer)
5 _____ 10 _____ 40 _____

Monthly electrical usage vs. size of home

Size (sq. ft.)	Usage (k-watt hrs)
1350	1172
1470	1264
1600	1493
1840	1711
2230	1840
2400	1956

1. What is the equation? (Round to ten thousandths)
y = _____
2. What is usage when home size is... (Round to the nearest integer)
950 _____ 2000 _____ 3500 _____

Number of Americans (in thousands) over 100 (age)

Year	Number (thousands)
1994	50
1996	56
1998	65
2000	75
2002	94
2004	110

- Let $x = \text{number of years after 1990}$
1. What is the equation? (Round to thousandths)
y = _____
 2. How many Americans will be over 100 in... (Round to the nearest integer)
2010 _____ 2020 _____ 2050 _____

Diagnosis of AIDS 1999-2003

Year	Cases
1999	41,356
2000	41,267
2001	40,833
2002	41,289
2003	43,171

- Let $x = \text{number of years after 1990}$
1. What is the equation? (Round to tenths)
y = _____
 2. How many cases of AIDS were probably diagnosed in... (Round to the nearest integer)
2005 _____ 2007 _____ 2009 _____

Concentration of medication in blood over time

Time (hours)	Conc. (mg/l)
0	0
0.5	78.1
1	99.8
1.5	84.4
2	50.1
2.5	15.6

1. What is the equation? (Round to tenths)
y = _____
2. What is the concentration after... (Round to the tenths place)
1.25 hours _____ 2.54 hours _____

Height of ball as it travels x meters horizontally

Distance (m)	Height (m)
7	8
20	15
33	24
47	26
60	24
67	21

1. What is the equation? (Round to thousandths)
y = _____
2. What is the height when distance is... (Round to the tenths place)
5 _____ 40 _____ 72 _____