6.4 Practice Solutions

Tell whether x and y show a positive, negative or no correlation.
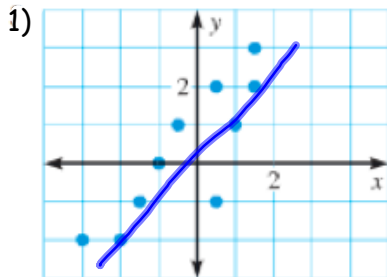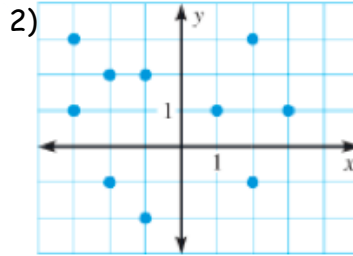
1)	2)	3)
POSITIVE	**NO CORRELATION**	**NEGATIVE**
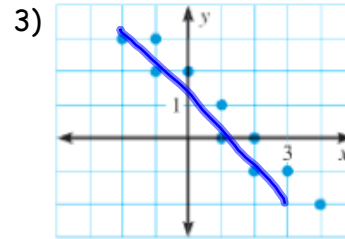
Make a scatter plot of the data. Find the equation of the best-fitting line. Approximate the value of y for x = 5.

4)

X	0	2	4	6	7
Y	2	7	14	17	20

LinReg
y=ax+b
a=2.56097561
b=2.268292683

$$Y = 2.6X + 2.3$$

$$Y = 2.6(5) + 2.3 = \boxed{15.3}$$

Make a scatter plot of the data. Find the equation of the best-fitting line. Approximate the value of y for x = 10.

5)

X	0	1	2	3	4
Y	20	32	39	53	63

LinReg
y=ax+b
a=10.7
b=20

$$Y = 10.7x + 20$$

$$Y = 10.7(10) + 20 = \boxed{127}$$

Find the zeroes of the function.

6) $f(x) = 7.5x - 20$

$$0 = 7.5x - 20$$
$$+20 \qquad +20$$
$$\overline{}$$
$$\frac{20}{7.5} = \frac{7.5x}{7.5}$$
$$2\frac{2}{3} = x = \boxed{\frac{8}{3}}$$

7) $f(x) = \frac{1}{8}x + 2$

$$0 = \frac{1}{8}x + 2$$
$$-2 \qquad -2$$
$$\overline{}$$
$$(8)-2 = \frac{1}{8}x\,(8)$$
$$\boxed{-16 = x}$$

8) $f(x) = -0.5x + .75$

$$0 = -.5x + .75$$
$$-.75 \qquad -.75$$
$$\overline{}$$
$$\frac{-.75}{-.5} = \frac{-.5x}{-.5}$$
$$\boxed{1.5 = x}$$

Describe and correct the error made in finding the zero of the function y = 2.3x – 2

9) y = 2.3(0) – 2
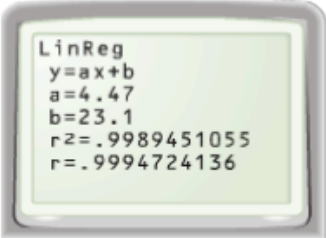   y = -2

You sub 0 In for y not x.

$$0 = 2.3x - 2$$
$$+2 \qquad +2$$
$$\frac{2}{2.3} = \frac{2.3x}{2.3}$$

$$x < \frac{20}{23}$$

Describe and correct the error in finding an equation of the best-fitting line using a graphing calculator.

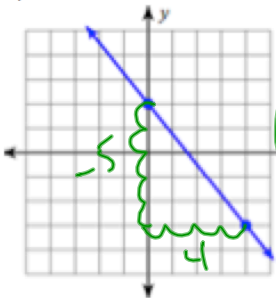10)

Equation of the best-fitting line is ✕
y = 23.1x + 4.47.

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LinReg
y=ax+b
a=4.47
b=23.1
r2=.9989451055
r=.9994724136
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$$Y = 4.47x + 23.1$$

Switched a and b values.

SKILLZ REVIEW		
Find the slope of the line.	Simplify.	Solve.
1) $\dfrac{-5}{4}$	2) $6 + 2(5 - 3k)$ $6 + 10 - 6k$ $\boxed{16 - 6k}$	3) $0 = -3 + \dfrac{m}{3}$ $+3 \quad\; +3$ $(3)\, 3 = \dfrac{m}{3}\,(3)$ $\boxed{9 = m}$