Strand 3 answers

3-1

a) Non-linear, b) linear

2a) linear b) non-linear c)non linear

3a) b and d

4a) non-linear, degree 2 b) linear, deg 1 c) non-linear deg. 2 d) non-linear e) linear

f) linear(vertical) g) linear(horizontal)

3-2

1a) $y=\frac{3}{2}x+8$ b) $y=\frac{13}{11}x+\frac{12}{11}$ c) $y=\frac{9}{7}x+1$ d) $y=\frac{1}{3}x-2$ e) $y=-\frac{6}{5}x-3$

f) $y=4x-1$

2a) $11x-4y+32=0$ b) $144x+6y-5=0$ c) $7x+3y-15=0$ d) $4x+24y+9=0$

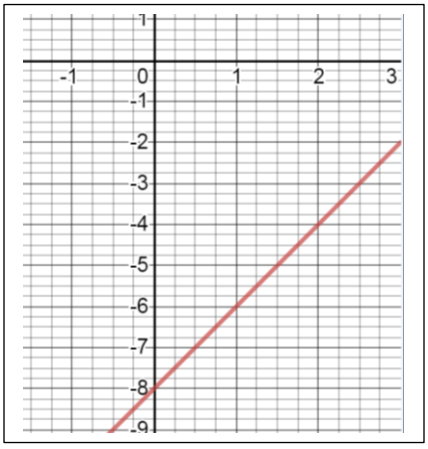
e) $160x+300y-15=0$ f) $5x-6y-42=0$

3a) $y=-\frac{5}{4}x-1$ b) $y=\frac{1}{2}x$ c) $y=-x-3$ d) $y=\frac{1}{2}x-4.5$

3-3

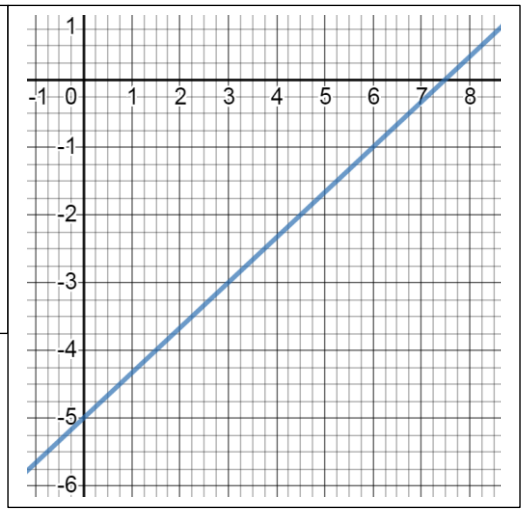
a)

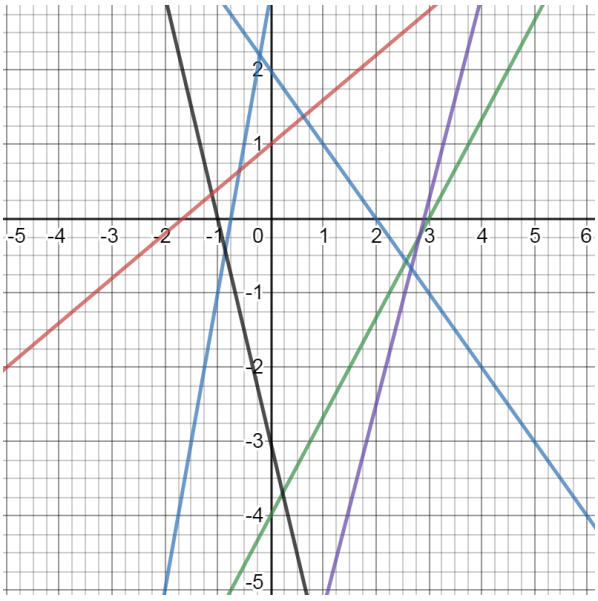
X	Y
0	-8
1	-6
2	-4
3	-2
4	0



b)

X	Y
0	-5
3	-3
6	-1
9	1
12	3





Strand 3 answers

3a) x=1.5, y=-3 b) x = 2.9, y= 8 c) x=2.25, y=0,75 d) x=2, y=-4 e) x=-4, y=-6
f) x=6, y=2.4

3-4

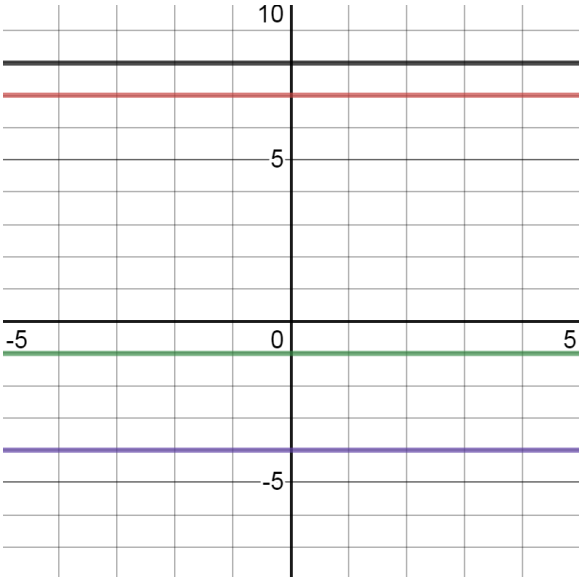
1 a) y=2x-3 b) $y=\frac{3}{4}x-14$ c) $y=\frac{6}{7}x-\frac{25}{7}$ d) $y=-x+3$

2a) $y=-5x-1$ 3) $y=-4x-2$ 4) $y=-\frac{1}{2}x+1$

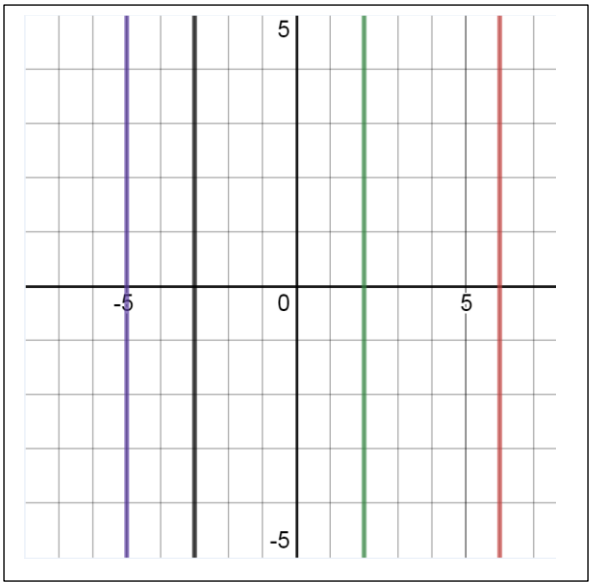
5a) $y=\frac{1}{2}x-2$ b) $y=-\frac{5}{3}x+2.5$ c) $y=\frac{4}{3}x-2.5$ d) $y=-\frac{3}{2}x+\frac{1}{2}$

3-5

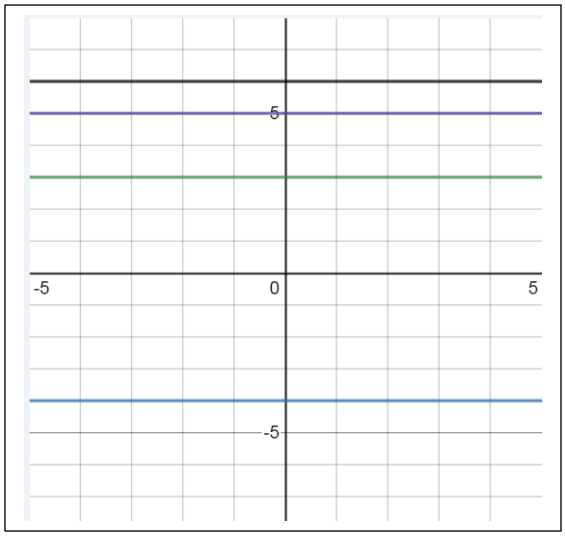
1)



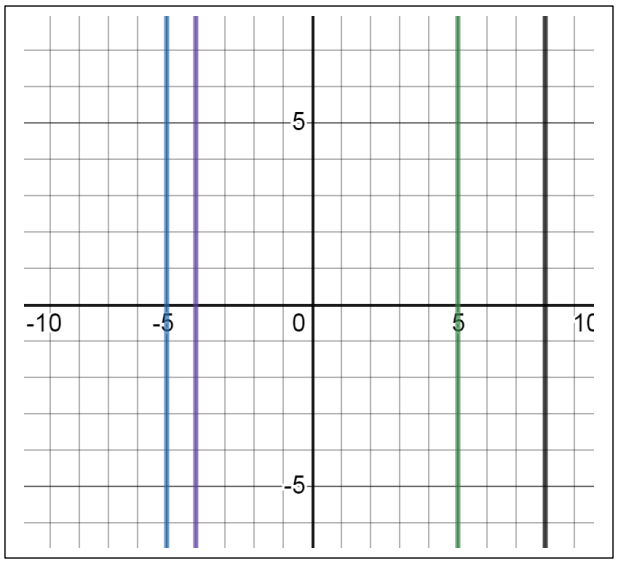
2)



3)



4)

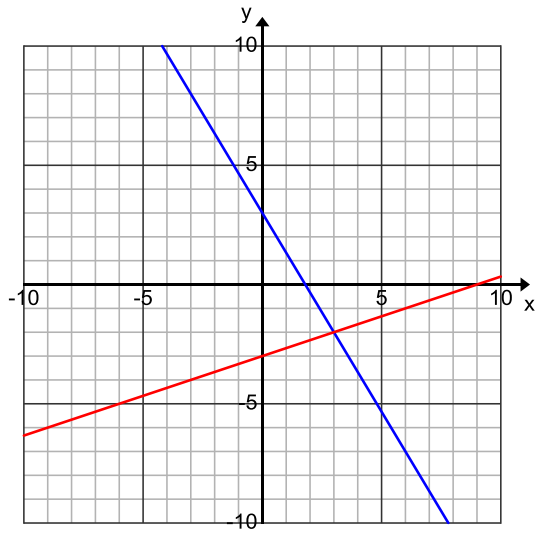


5) any horizontal line in the form y=b

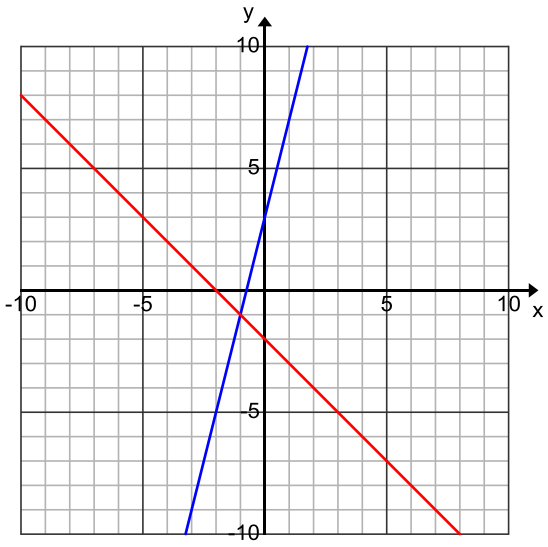
Strand 3 answers

3-6 #1 Solutions

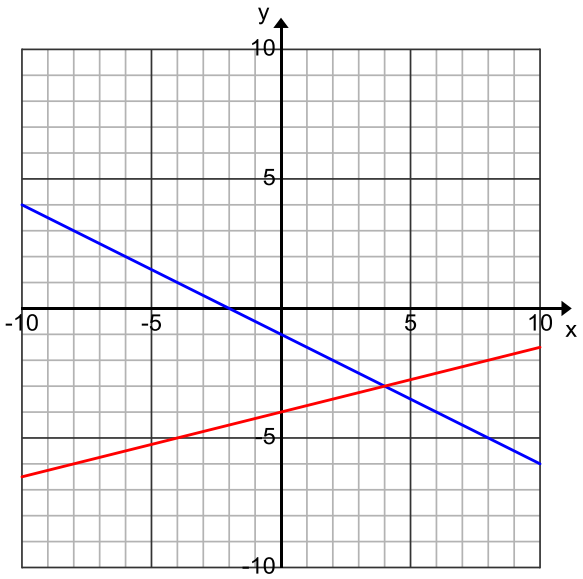
a)



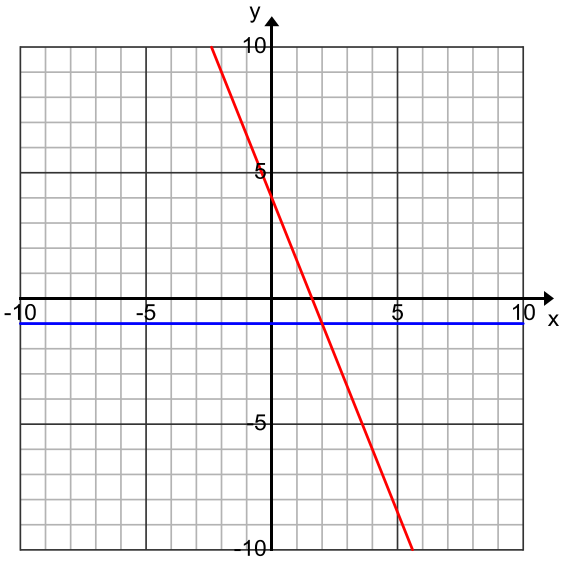
b)



c)

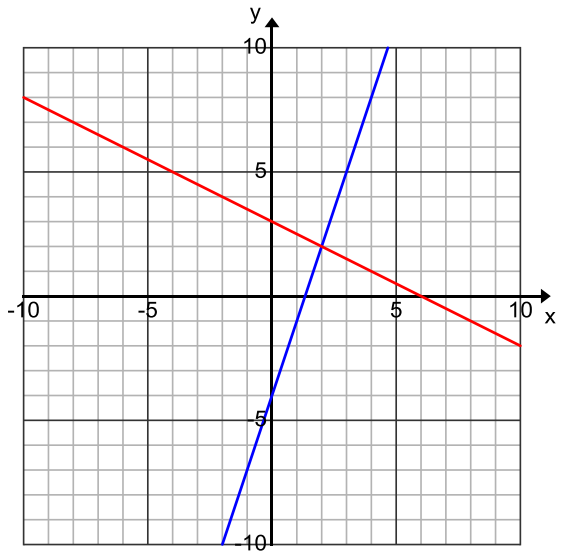


d)

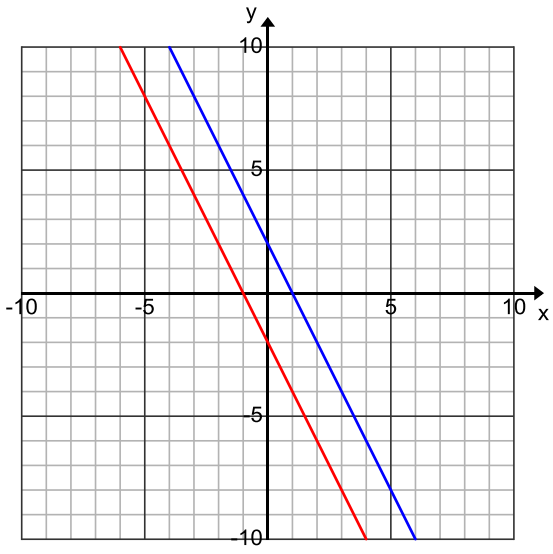


Strand 3 answers

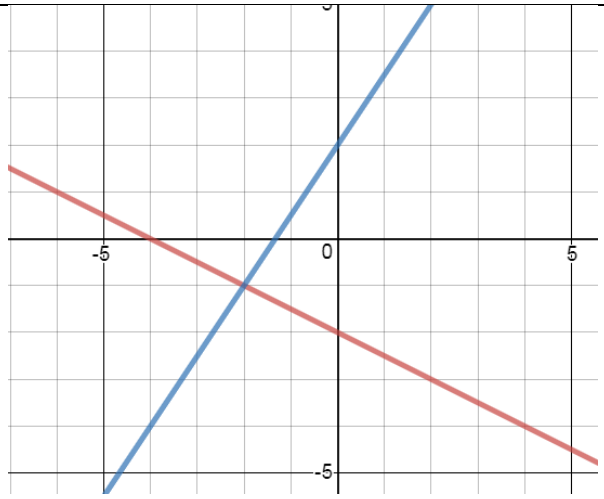
e)



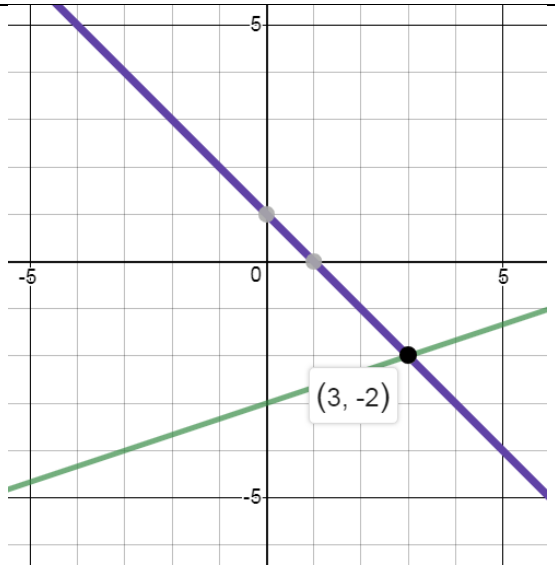
f)



g)

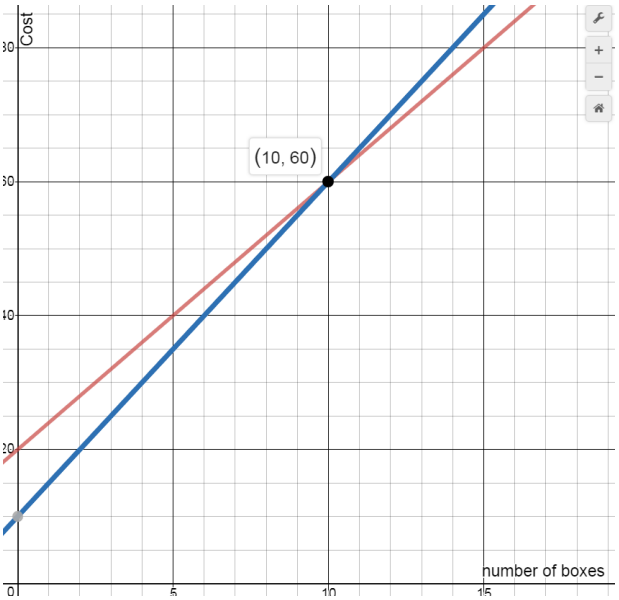


h)



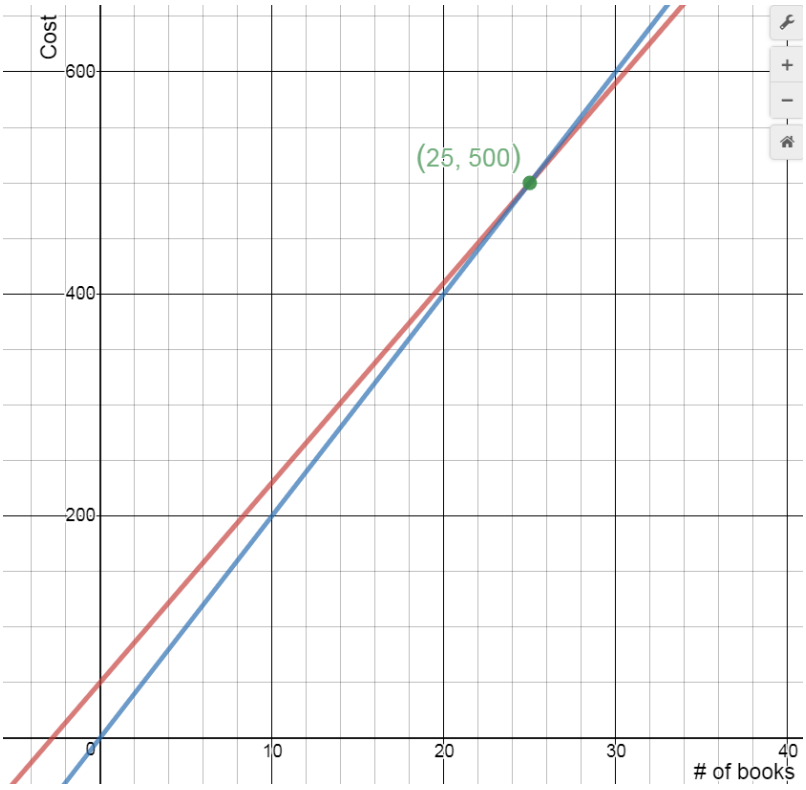
#2

Strand 3 answers



The point of intersection is (10, 60). Therefore he would pay the same amount($60) for 10 boxes at either company.

#3

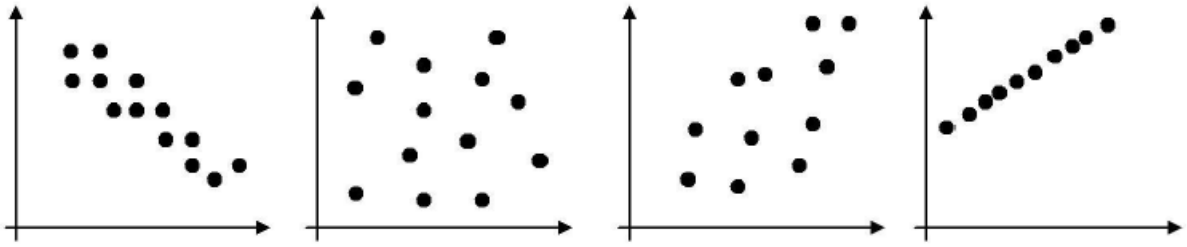


The point of intersection is (25, 500). Both pay the same amount for 25 books. If you know you are going to buy more than 25 books then the discount card is a better deal.

Strand 3 answers

3-7 Scatter plots and lines of best fit

1. Describe the relationship between the two variables.



Linear, strong, negative no correlation linear, moderate, positive linear, strong, positive

2. a) Independent: mark in school Dependent: time spent in front of the television
As the amount of time watching tv increases, mark decreases

b) no correlation

c) Independent: Temperature Dependent: Freeze sales
As temperature increases, freeze sales decreases

d) Independent: Weight Dependent: Pain
As the weight in the backpack increases, back pain increases

#3
At 7 years the diameter will be approximately 10 cm by extrapolation
At 65 years old the diameter will be approximately 82 cm by interpolation.

Strand 3 answers