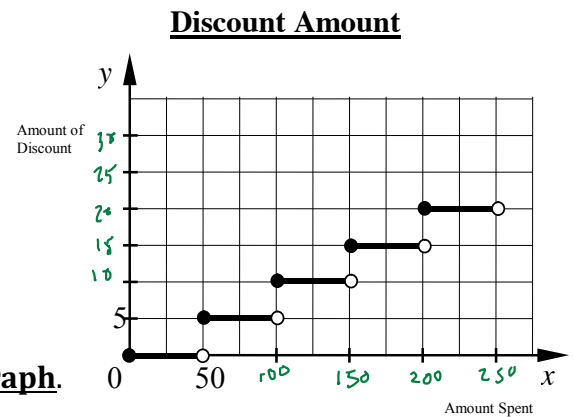Name: _____

Date: _____

1. A store offers a discount of $ 5 for every $ 50 in purchases.

The graph shows the value of the purchases (x) and the amount of discount a customer receives (y).

Discount Amount

Consider the following five statements regarding the graph.

1) A customer who spends $150 will receive a $10 discount. ✗

2) A customer who spends $75 will receive a $5 discount. ✓

3) A customer will receive a $5 discount when spending less than $100. ✗

4) A customer will receive twice as much of a discount when spending $200 compared to $100. ✓

5) A customer will receive no discount when spending less than $50. ✓

Which of the statements above are true?

A. 2, 4 and 5
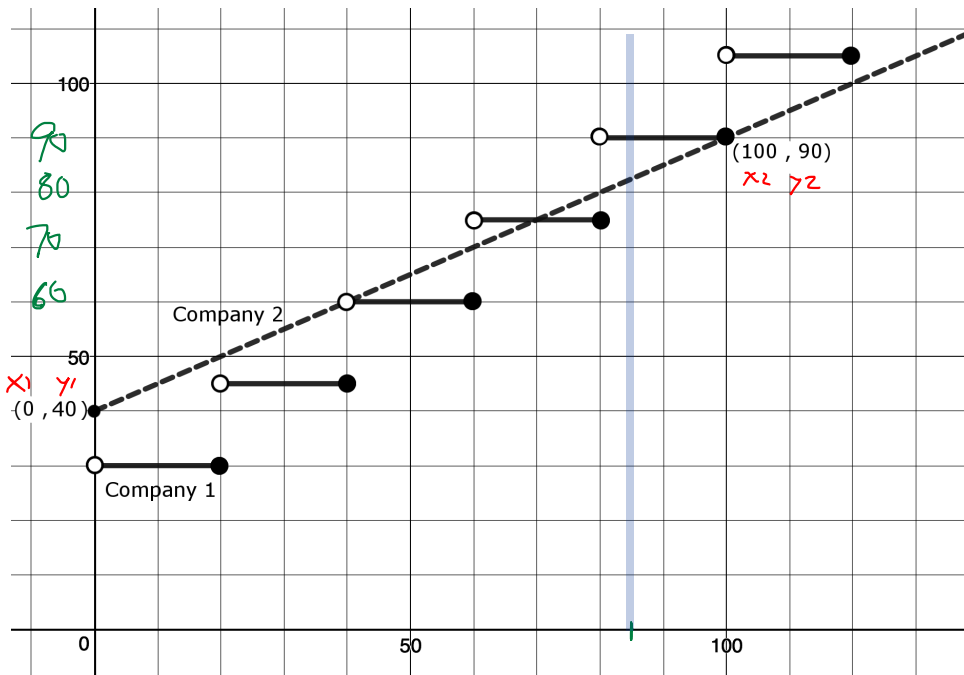
B. 2, 3 and 4

C. 1, 2 and 4

D. 1, 2 and 3

Answer: _____

2. Peter wants to rent a car. He plans to **drive 85 km**.
   He checks the rental costs at two rental companies, Company 1 and Company 2.
   The graph below shows how cost and distance travelled work for each company.

What is the **_difference_** in the rental cost between the two companies at 85 km?

Company 1 = $90

Company 2 = $\frac{y_2-y_1}{x_2-x_1} = \frac{90-40}{100-0} = \frac{50}{100} = 0.5$
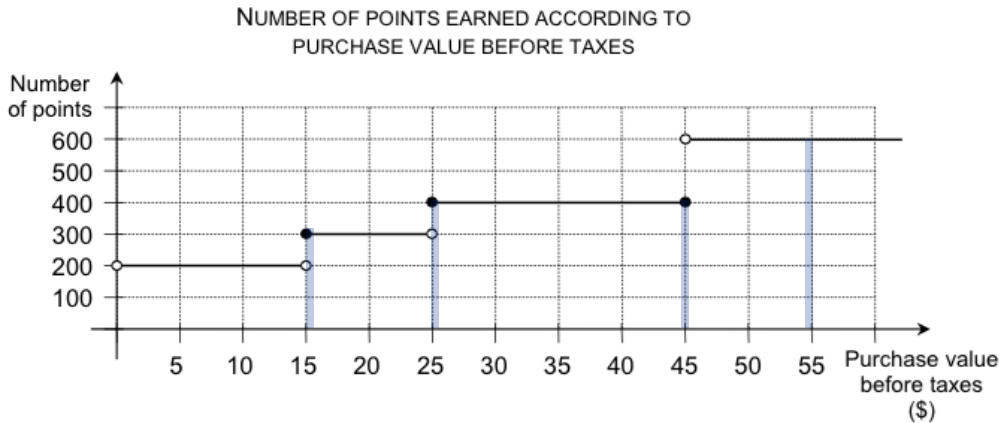
$y = ax+b$
$40 = 0.5(0)+b$
$40 = 0 + b$
$40 = b$

$y = a\overset{\frown{km}}{x}+b$
$y = 0.5(85)+40$
$\boxed{82.5}$

90
-82.5
_____
7.5

Answer: The difference in price between Co. 1 and Co. 2 at 85 km is $ ___7.5___ .

3. Customers earn points for every purchase they make at a music store.
When they have accumulated enough points, they get a gift card.

NUMBER OF POINTS EARNED ACCORDING TO
PURCHASE VALUE BEFORE TAXES

(handwritten, right margin:)
300
+ 400
+ 400
+ 600
——
1700

Kayla made four purchases at the store.
Before taxes, the values of her purchases were $15, $25, $45, and $55 respectively.

How many points did Kayla earn at the music store?

Answer: Kayla made ___1700___ points off her purchases at the store

4. The cost to park a car in an expensive lot is **$40 for the first half hour** and **$5.00 for each additional hour or part thereof**.

x	y
]0, 0.5]	40
]0.5, 1.5]	45
]1.5, 2.5]	50
]2.5, 3.5]	55
]3.5, 4.5]	60
]4.5, 5.5]	65
]5.5, 6.5]	70

A customer uses this parking lot for *five hours*.
How much will the customer pay for parking?

The customer will pay ___65___ $

CHALLENGE :

5. Here is the discount advertised at a sporting goods store.

DISCOUNT
Get $5 off for every $20 you spend before taxes.

Alex bought a jersey at this store and got a discount of $15.

$[0, 20[\rightarrow 0$

$[20, 40[\rightarrow 5$

$[40, 60[\rightarrow 10$

$[60, 80[\rightarrow \boxed{15} \rightarrow$ Jersey only

$[80, 100[\rightarrow 20$ $60 \rightarrow 79.99$

Ryan bought a jersey and a cap at the same store.
He got a discount of $20. The price of the cap was $15.99.
The price of Alex's jersey was the same as Ryan's jersey.

Jersey + cap = 20 discount

$\begin{array}{cc} 80 & 99 \\ -15.99 & -15.99 \\ \hline 64.01 & 83.01 \end{array}$

lowest price = 64.01
highest price = 79.99

What are the possible prices, before taxes, of the jersey Alex bought?

Answer: The possible prices, before taxes, of the jersey are: 64.01 - 79.99