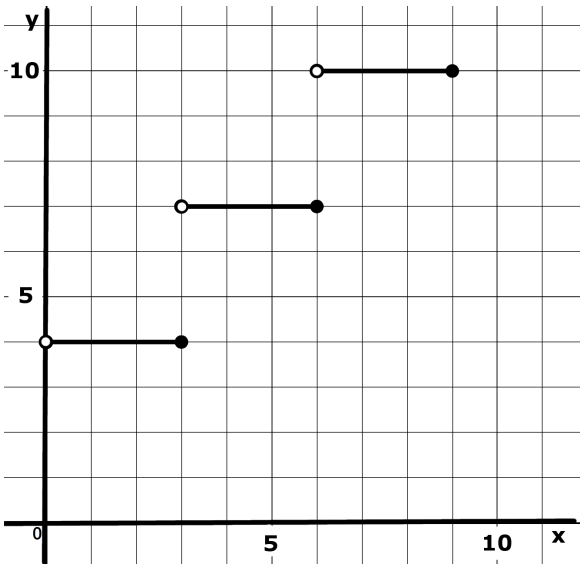
Name: _____ / 25 Step Functions – 04
Date: _____ Practice Test 01

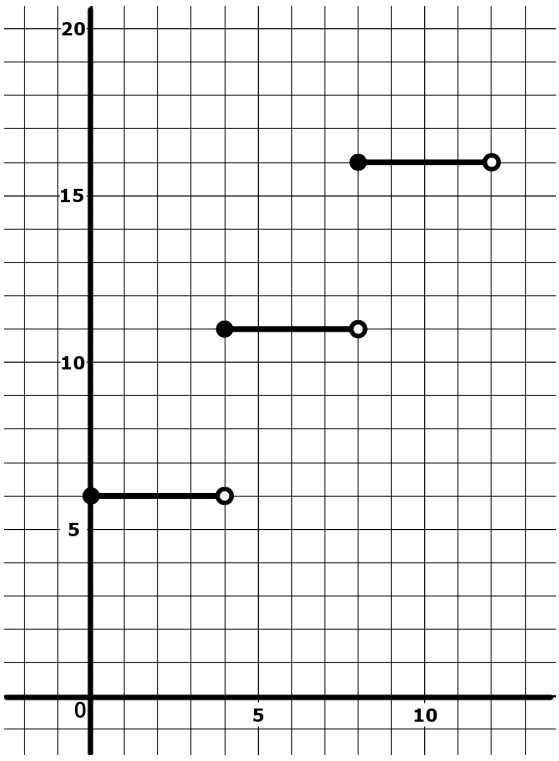
1. Using the graph at right, **predict** the value of **y when x = 21.** **/ 4**

x	y
]0, 3]	4
]3, 6]	7
]6, 9]	10
]9, 12]	13
]12, 15]	16
]15, 18]	19
]18, 21]	22
]21, 24]	25



Answer: (21 , 22)

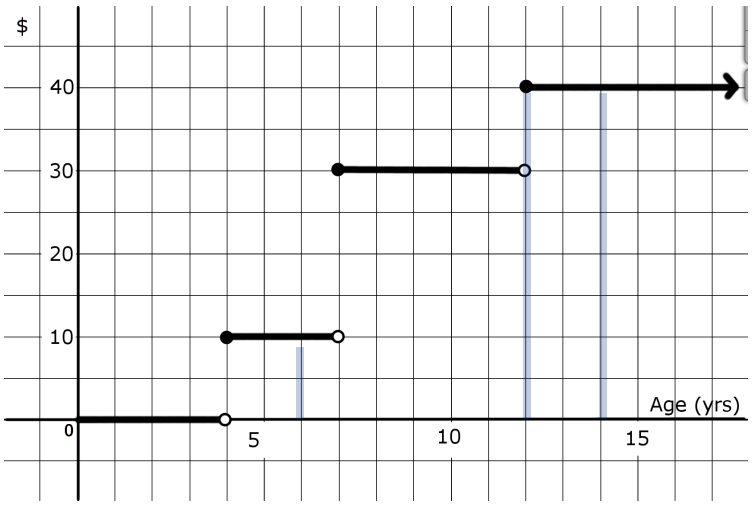
2. Using the graph below, predict the value of y when x = 24 **/ 4**



x	y
[0, 4[	6
[4, 8[	11
[8, 12[	16
[12, 16[	21
[16, 20[	26
[20, 24[	31
[24, 28[	36

Answer: (24 , 36)

3. The following graph shows the cost of a ticket to the Ecomuseum given a person's age.



/ 4

40
40
40
0
10
130

As part of a science fair project, Dan, Jay, Miles, Harry and Chuck visit the park.

- Dan and Jay are both 14 years old
- Miles is 12
- Harry is 4
- Chuck is 6

What will be the *total cost* for this group to visit the Ecomuseum?

Total cost 130 **$**

4. The cost to park a car in an expensive lot is **$30 for the first two and a half hours** and **$6.00 for each additional hour or part thereof**.

A customer uses this parking lot for ***6 hours***.
How much will the customer pay for parking?

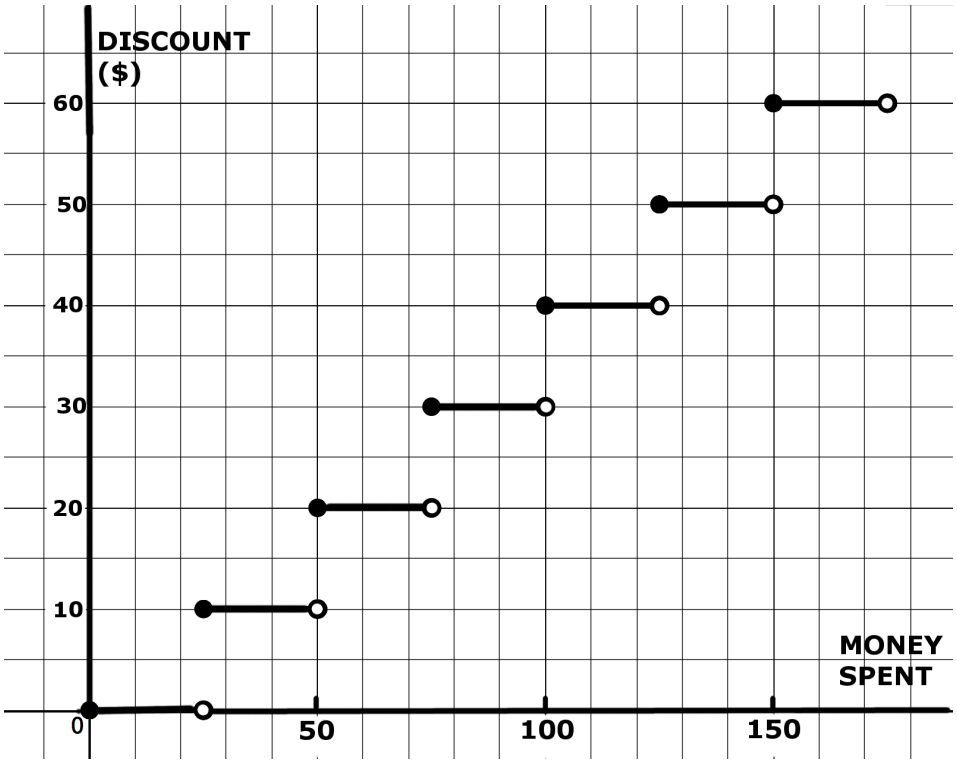
/ 4

]0, 2.5] → 30
]2.5, 3.5] → 36
]3.5, 4.5] → 42
]4.5, 5.5] → 48
]5.5, 6.5] → 54

The customer will pay 54 **$**

5. A store offers a discount of $ 10 for every $ 25 in purchases.

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



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Consider the following five statements regarding the graph.

1) A customer who spends $100 will receive a $40 discount. ✓
2) A customer who spends $75 will receive a $20 discount. ✗
3) A customer will receive a $10 discount when spending less than $50. ✗
4) A customer will receive twice as much of a discount when spending $150 versus $75. ✓
5) A customer will receive no discount when spending $25 or less ✗

Which of the statements above are true?

A. 2, 3 and 5
B. 2, 3 and 4
C. 1, 4 and 5
D. 1 and 4

Answer: D

6. Here is the discount advertised at a clothing store.

/ 5

DISCOUNT
Get $7 off for every $20 you spend before taxes.

Laura bought a sweater at this store and got a discount of $ 28.

[0, 20[→ 0
[20, 40[→ 7
[40, 60[→ 14
[60, 80[→ 21
[80, 100[→ 28
[100, 120[→ 35
[120, 140[→ 42

Sam bought a sweater and a pair of mittens at the same store.
She got a discount of $42. The price of the mittens was $24.99

The price of Sam's sweater was the same as Laura's sweater.

120 − 24.99 = 95.01

139.99 − 24.99 = 115

What are the possible prices, before taxes, of the sweater Laura bought?

Answer: The possible prices, before taxes, of the sweater are: 95.01 → 99.99