



Math final assessment
December 2021

NAMES _____

Class grade _____ Assessment _____ FINAL _____

You may use your own calculator and ruler

No questions for teacher before 2PM

Final answers must be put after A: _____

(1)

In a race there are three runners. This is how far each has run so far.

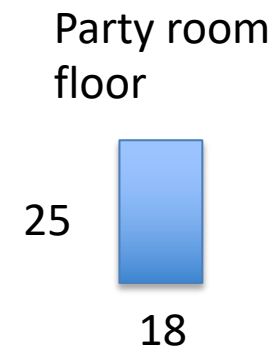
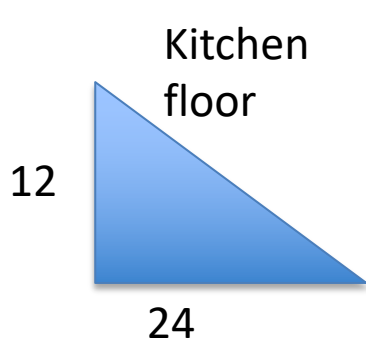
How much do they still have to run?

Bob: $\frac{6}{3}$ finished the race % left _____

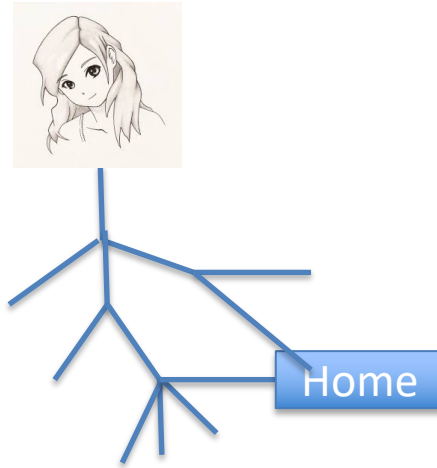
Larry: $\frac{3}{11}$ finished the race % left _____

Rupert: 28% finished the race % left _____

(2) You want to paint the floors in three rooms in your house. One gallon of paint covers 12 square feet and cost \$102.00. Approximately how much will it cost you to paint all three floors? A: _____

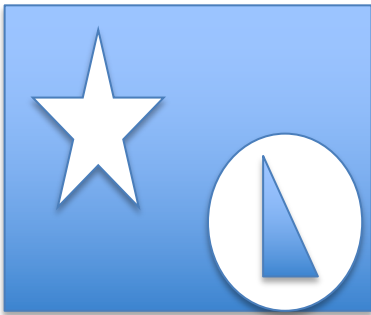


(3) What is the probability that LaToya will find her way home?



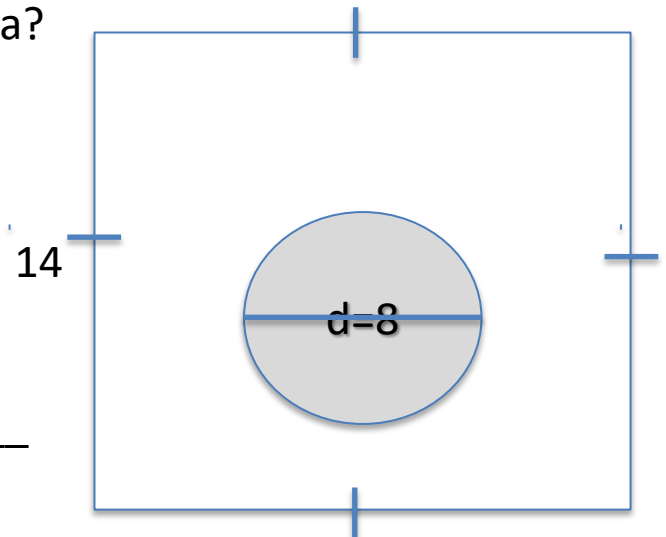
(4) What is the probability to roll a fair die and get an even number greater than 4?

(5) What is the probability of hitting the darkened area?



A: _____

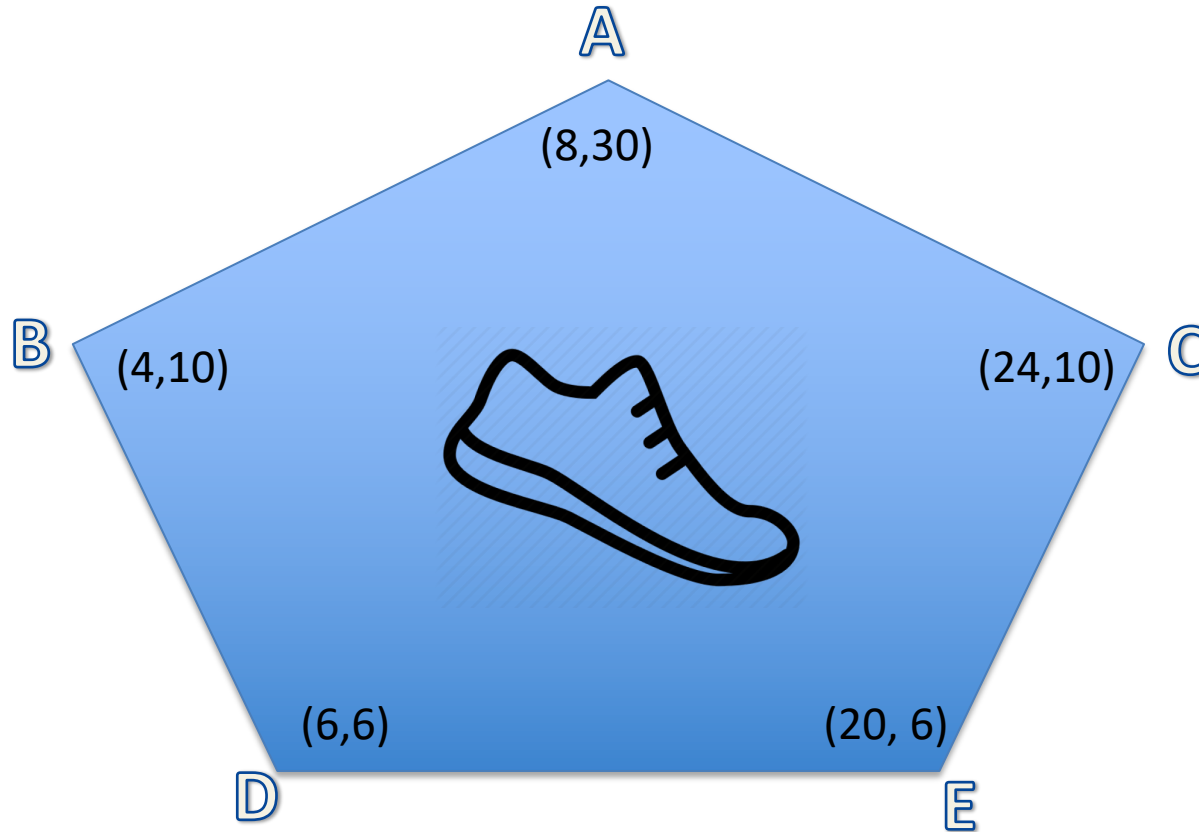
A: _____



(6)

Harriette is getting commission for fruit.

Apples (x) = \$.75/each
Oranges (y) = \$.50/each



Harriette has five neighbourhoods in which she can sell fruit.

What location will give her the most amount of money? How much? _____ . _____

What location will give her the least amount of money? How much? _____ . _____

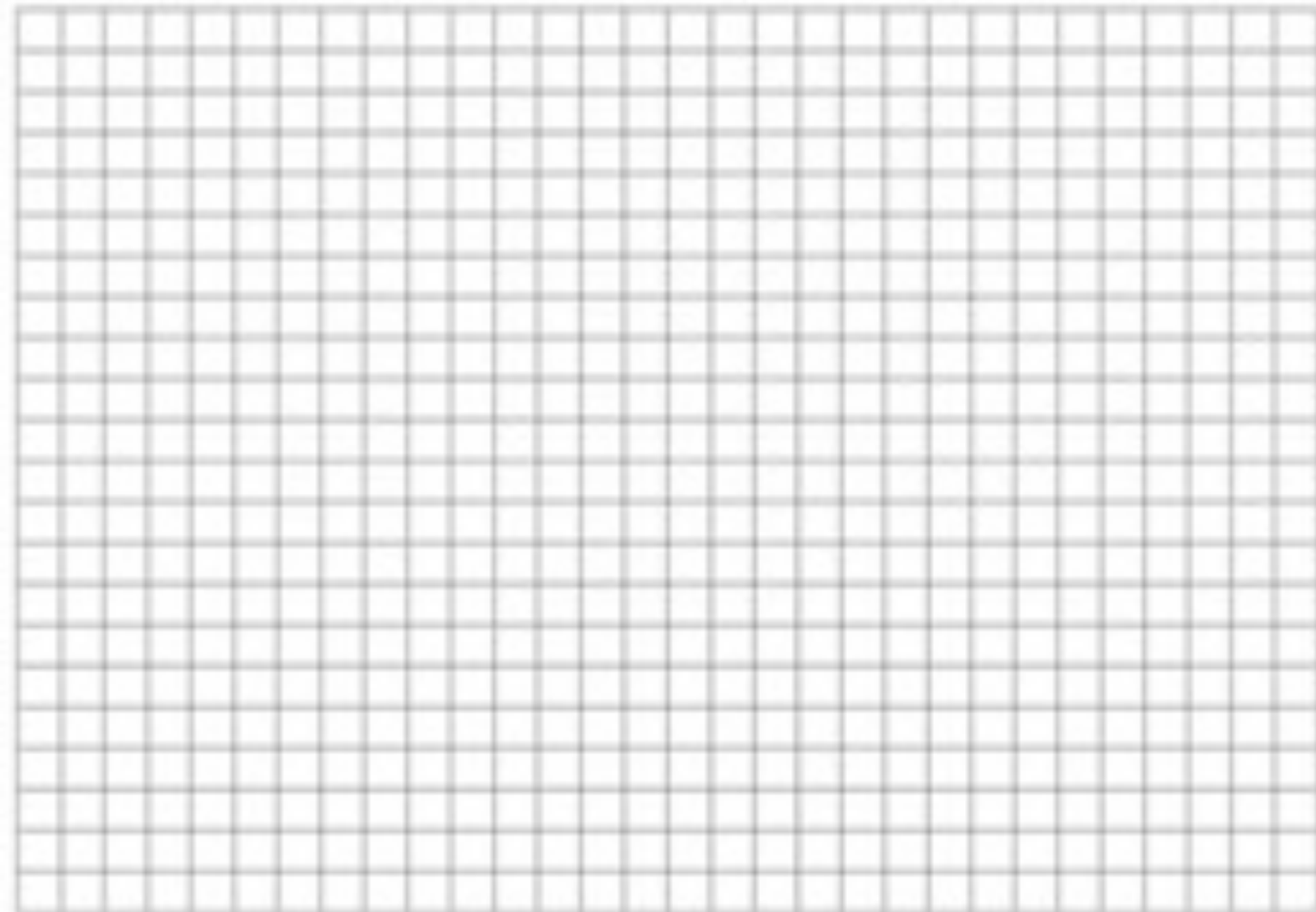
(7)

Make a table for each equation and then draw both lines on the same graph.

Where do these two lines meet? A: _____

$$16X + 8Y = 24$$

$$4X - 8Y = 16$$



(8) Find the mean, median and mode for the following distributions:

X	Y
10	6
9	5
16	10
8	0
20	5
9	3
14	11
9	1
8	2
9	9
7	2

	X	Y
Mean		
Median		
Mode		

(9) Bonita is running up a hill.

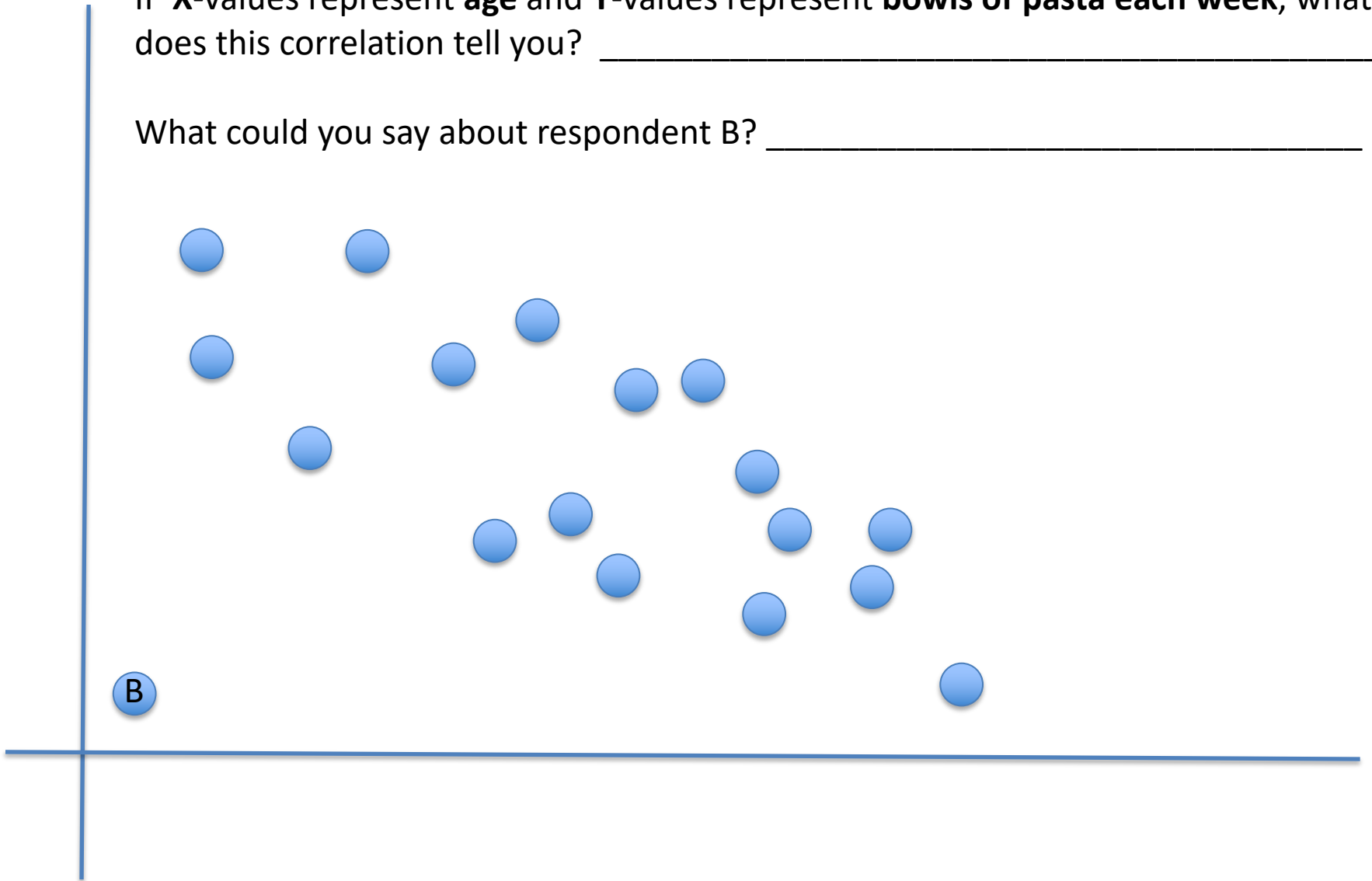


What is the **slope** of the hill: A: _____

(10) Find the correlation between X and Y values _____

If **X**-values represent **age** and **Y**-values represent **bowls of pasta each week**, what does this correlation tell you? _____

What could you say about respondent B? _____



- (11) On a construction site there are 500 employees – some male and some female.
30% of the employees are female
1/2 of the males are engineers
There are 50 female engineers

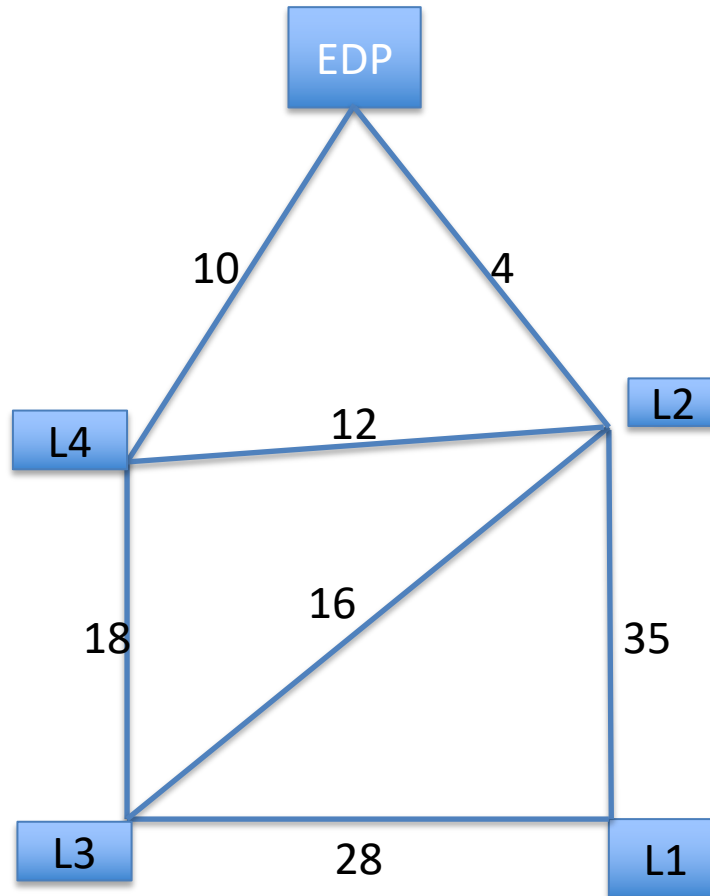


How many female employees are not engineers? A: _____

- (12) In a dish there are 18 red, 3 green and 12 yellow candies. What is the probability that you will randomly select a red, then a green, then a yellow, and then another red? (Don't put them back in the dish – that's gross!)

A: _____

- (13) EdPlus wants to install four lights (L1,L2,L3,L4) in their parking lot. The lines are the possible routes they could choose. The numbers indicate the distance in feet. At **\$12/foot**, what is the least they will pay to install the lights.

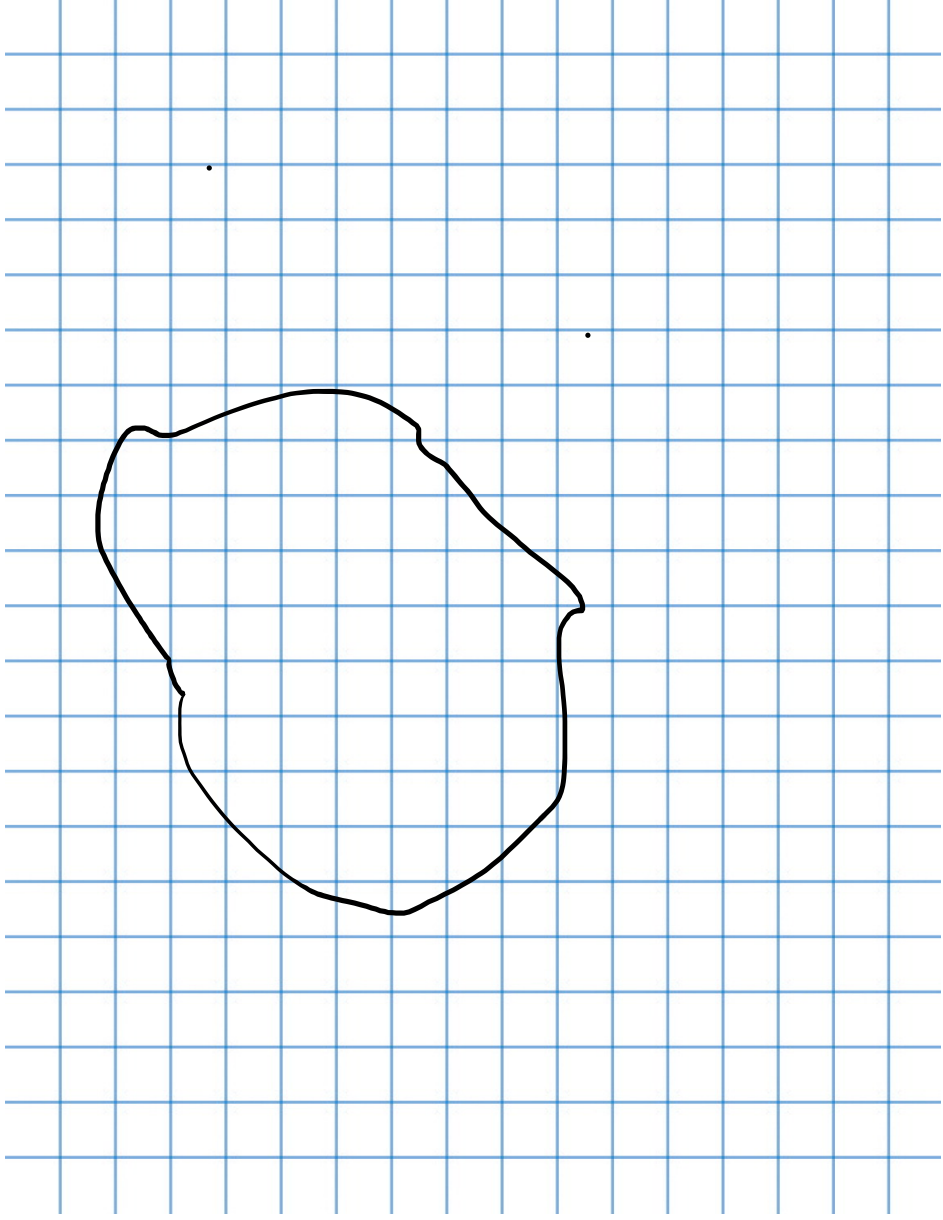


A: _____

(14)

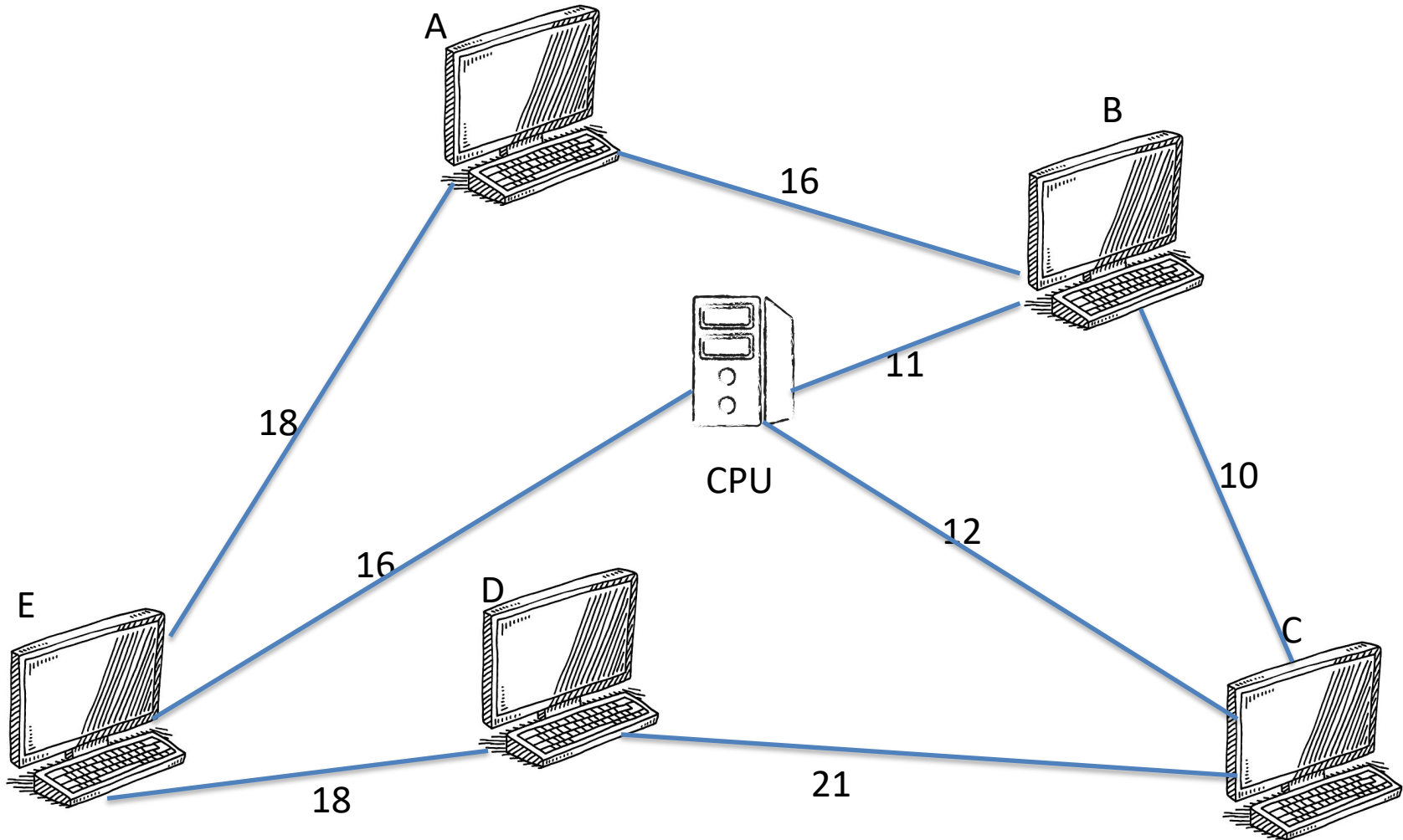
According to Pick's formula, what is the area of the the following shape?

A: _____



(15)

Larry wants to develop a network that connects 5 computers (A,B,C,D,E) to the CPU. The numbers are the costs of wiring between each computer. He want to spend as little as possible. How much will it cost? A: _____



(16)

Sammy the seal wants to leave his cave, visit EdPlus and then go to LaRonde. Find the shortest distance A: _____

Paula's
cave

16



LaRonde

8

40
EdPlus

(17) Find distances:

Lita's home to school

A: _____

School to park

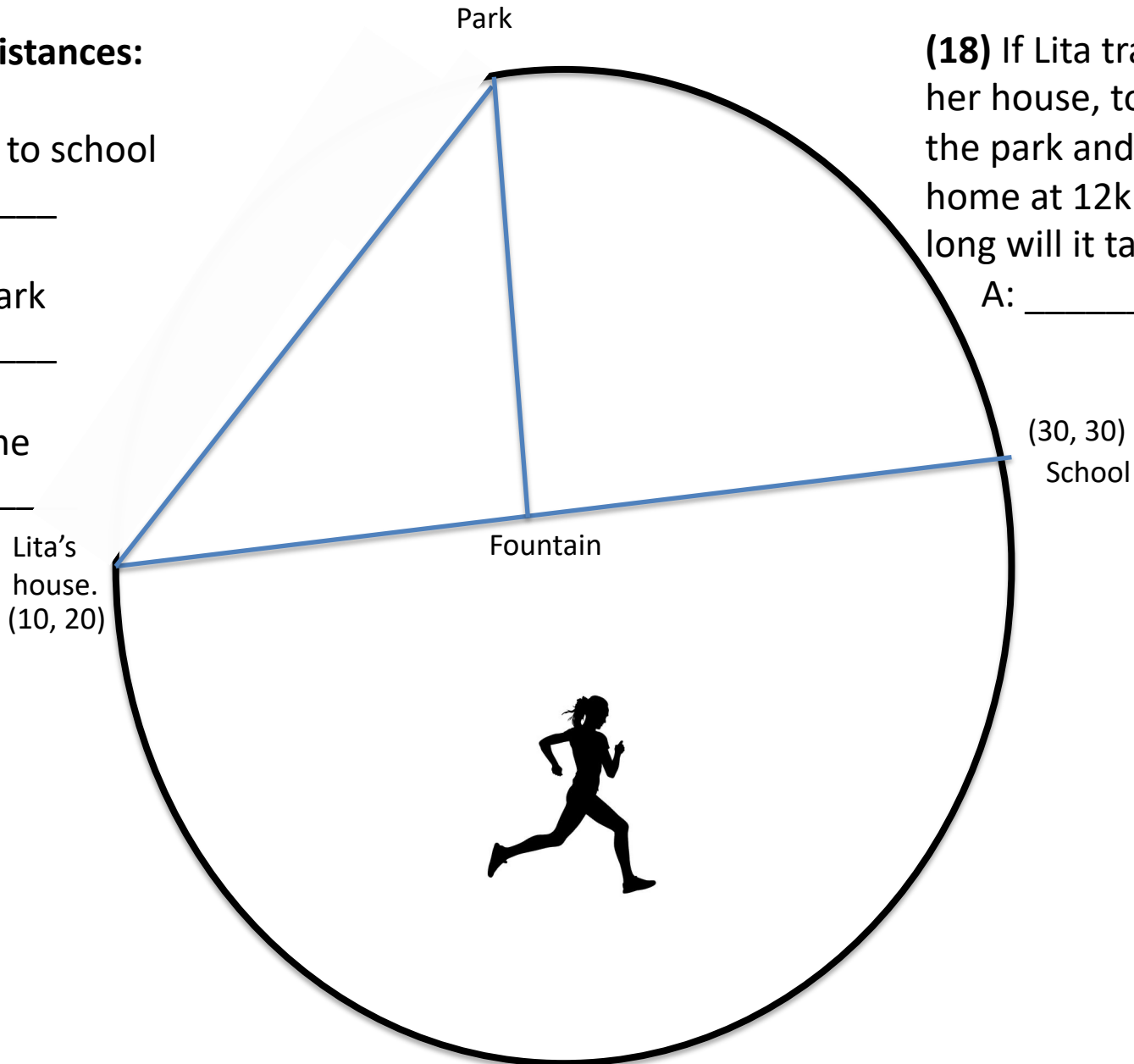
A: _____

Park to home

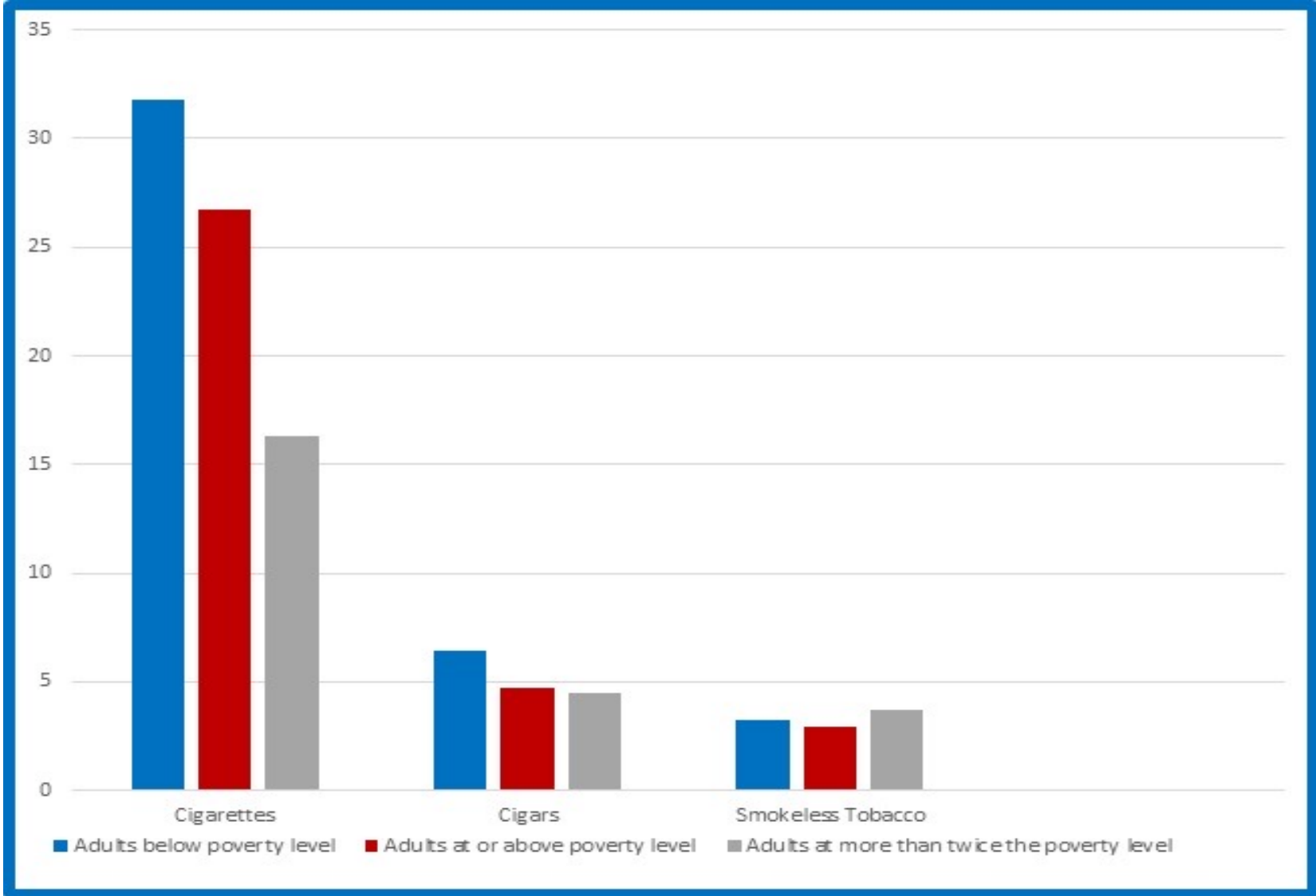
A: _____

(18) If Lita travels from her house, to school, to the park and then back home at 12kms/hr how long will it take her?

A: _____



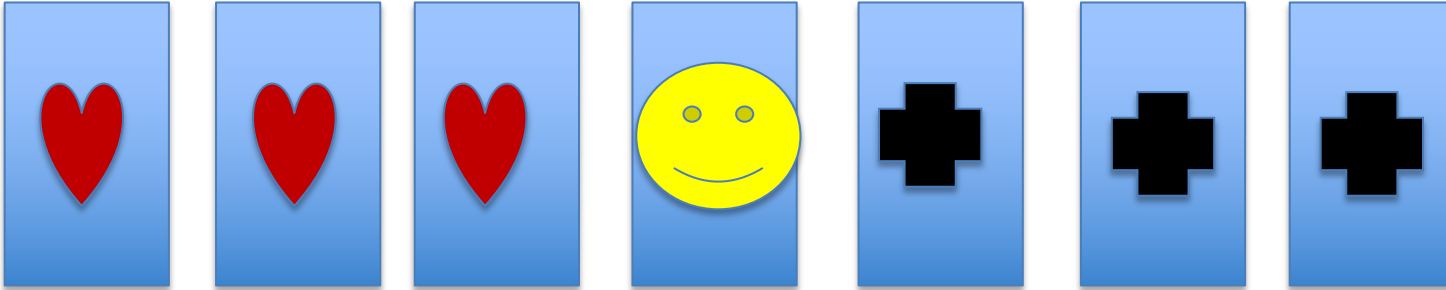
Lita is running from her house to school. Then she will go to the park, and then from the park back home. The fountain is the **mid-point** between her home the school.



(19) What's the story? _____

(20) Given the following information, what is a fair price to charge to play this game of chance?

A: _____



If you choose a door with . . .



You lose the money you bet



You win \$15 and you keep the money you bet



You win \$5 and you keep the money you bet

Bonus Question

Six men were in a restaurant together. Their names are:

Jack
John
Brian
Tom
Bill
Jim

Suddenly, the lights went out. When the lights came back on, **Jack** had been stabbed.

No two suspects have the same :

wife's first name / hair color / color umbrella / color shirt / or weight.

The suspect who has a wife named Cathy weighs 160 pounds.

The suspect who has a wife named Betty has red hair.

Jim was carrying a green umbrella.

The suspect who was wearing a red shirt has brown hair.

The suspect who has a wife named Judy is not the one who was wearing a black shirt.

Bill has a wife named Jill.

The suspect who has a wife named Jill was wearing a white shirt.

The suspect who has red hair was wearing a yellow shirt.

The suspect who has brown hair has a wife named Cathy.

John has no hair.

Brian has a wife named Sally.

The murderer was wearing a black shirt.

The suspect who has black hair is not the one who was carrying a black umbrella.

Tom weighs 210 pounds.

Who done it? _____