

ANALYSIS QUESTIONS

1. What do you think a "constant" speed means?
I think a constant speed walking is walking at a regular rate, how you usually walk.
2. What does a constant speed look like on a graph? Describe the line.
The constant speed on a graph is a straight line.
3. Calculate the speed of the walker for the entire 35 m. Show your work with the correct units.
 $30\text{ m} \div 21\text{ sec} = 1.43\text{ m/sec}$
4. Calculate the speed of the walker for the first 20 m of the walk. Compare this speed with the speed in Question 3. It is the same m/sec
 $20\text{ m} \div 14\text{ sec} = 1.43\text{ m/sec}$
5. When you drive home from school in a car or a school bus, do you think the vehicle is going at a constant speed? Why or why not?
NO, because you would go fast then slow.

CONCLUSION

Use evidence from your activity to answer the focusing question. Answer in a paragraph using complete sentences.

After I was done graphing my data, the graph was a straight line. Also the points on the graph in time in second went up higher so it was a straight line.

EXTENSION

Draw a line on the graph to show a greater constant speed and a line to show a slower constant speed. Label the lines.

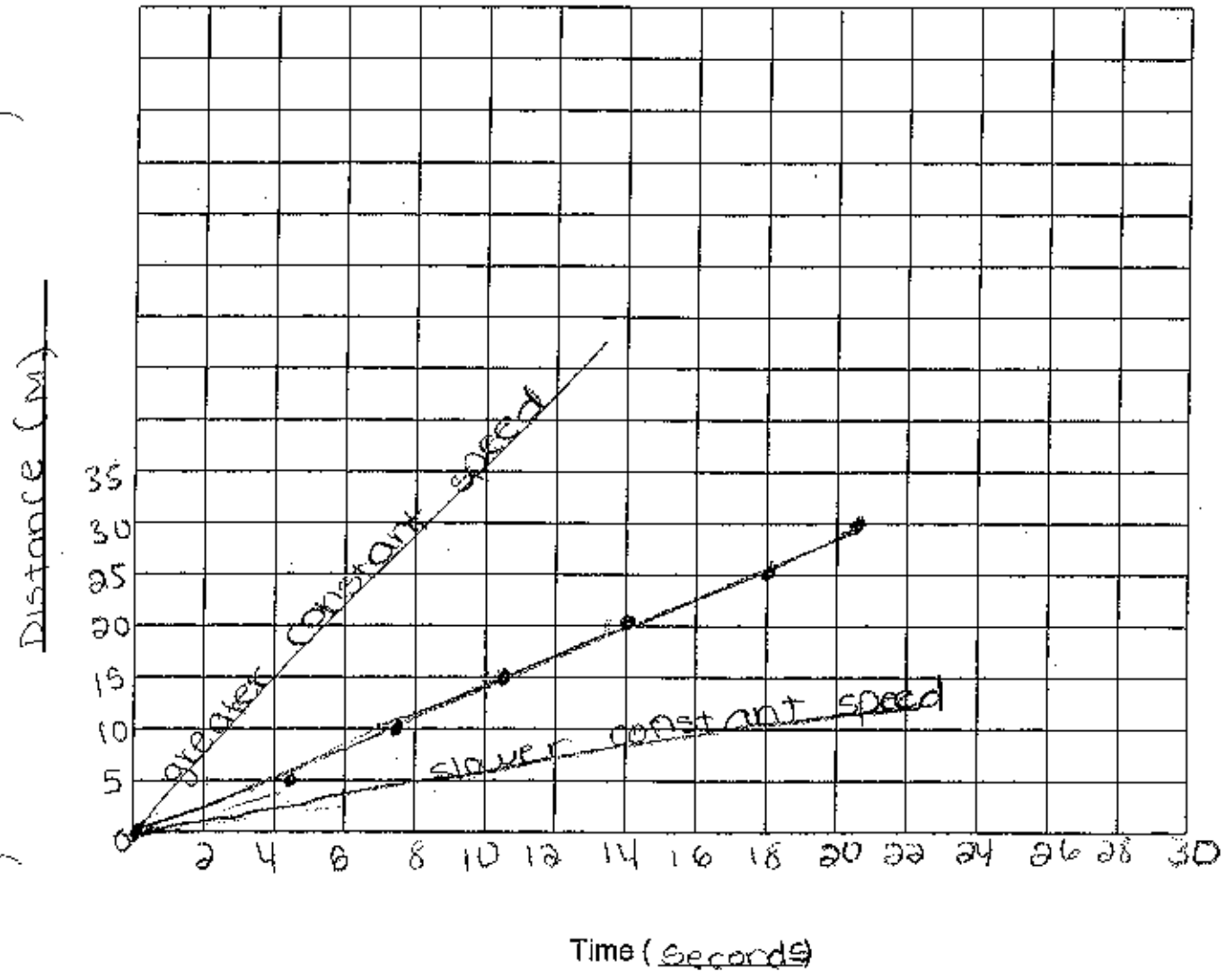
Your Team: ◆ Walker: Ada Your job: 30m

DATA TABLE: Round all times to the nearest second

Distance (m)	0m	5m	10m	15m	20m	25m	30m	35m
Trial #1 Time in sec	0 sec	2 sec	7 sec	10 sec	13 sec	18 sec	21 sec	
Trial #2 Time in sec	0 sec	2 sec	8 sec	12 sec	15 sec	19 sec	21 sec	
Trial #3 Time in sec	0 sec	2 sec	6 sec	11 sec	15 sec	18 sec	21 sec	
Average Time (seconds)	0 sec	2 sec	7 sec	11 sec	14 sec	18 sec	21 sec	

Make a graph of the distance and average time. DO NOT connect the dots!

Graph Title The walking speed



ANALYSIS QUESTIONS

1. What do you think a "constant" speed means?

I think it means at the same speed.

2. What does a constant speed look like on a graph? Describe the line.

It looks like a sloped line going up.

3. Calculate the speed of the walker for the entire ³⁰35 m. Show your work with the correct units.

$$\frac{30}{17} = 1.76$$

The speed was 1.76 m/sec for the walker.

4. Calculate the speed of the walker for the first 20 m of the walk. Compare this speed with the speed in Question 3.

$$\frac{20}{11} = 1.82$$

1.82 m/sec

The speeds are about the same.

5. When you drive home from school in a car or a school bus, do you think the vehicle is going at a constant speed? Why or why not?

No, I don't think the vehicle is going at a constant speed. I don't think so because the vehicle stops and the person driving obeys the speed limit.

CONCLUSION

Use evidence from your activity to answer the focusing question. Answer in a paragraph using complete sentences.

A constant walking speed looks like an upward slope on a graph.

It looks like an upward slope for many reasons. First, it does because an increase in distance makes the line go to the left. The time going up makes the line go up. At the same time, it makes the line slope.

EXTENSION

Draw a line on the graph to show a greater constant speed and a line to show a slower constant speed. Label the lines.

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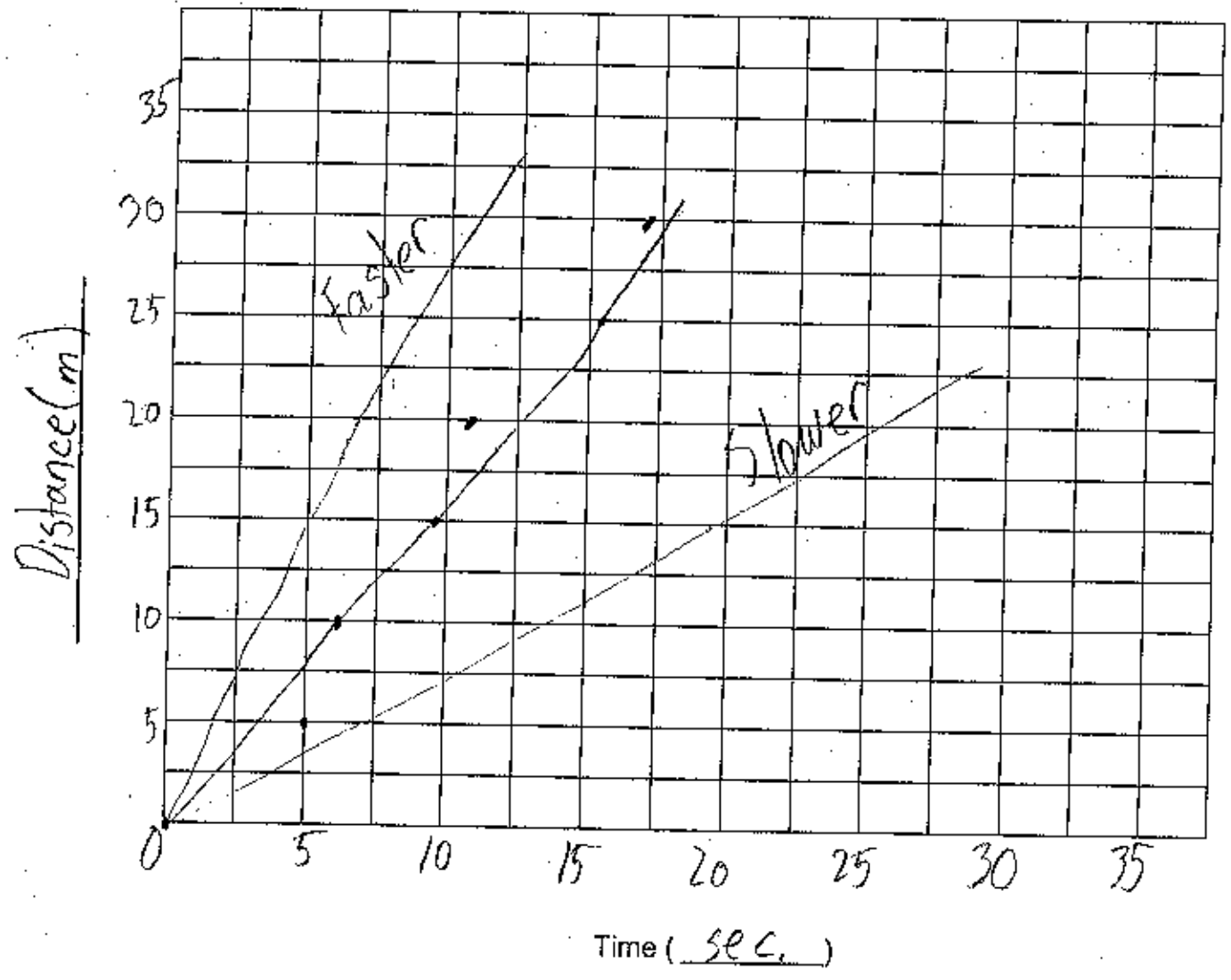
Your Team: Quib Walker: Ariella Your job: 3rd timer

DATA TABLE: Round all times to the nearest second

Distance (m)	0m	5m	10m	15m	20m	25m	30m	35m
Trial #1 Time in sec	0	3	6	9	11	13	18	
Trial #2 Time in sec	0	3	6	9	11	15	17	
Trial #3 Time in sec	0	8	5	10	12	19	17	
Average Time (seconds)	0	5	6	9	11	16	17	

Make a graph of the distance and average time. DO NOT connect the dots!

Graph Title Average Speed in Motion



ANALYSIS QUESTIONS

1. What do you think a "constant" speed means?

To keep the same pace all the way through.

2. What does a constant speed look like on a graph? Describe the line.

It's pretty much a straight line going diagonal upwards.

3. Calculate the speed of the walker for the entire 35 m. Show your work with the correct units.

$$5 + 9 + 13 + 18 + 25 = 85$$

The total is 85m, that have been walked.

4. Calculate the speed of the walker for the first 20 m of the walk. Compare this speed with the speed in Question 3.

$$5 + 9 + 13 + 18 = 45$$

$$\frac{85}{2} = 42.5$$
$$\frac{45}{1} = 45$$

The total is 45m, that have been walked.

5. When you drive home from school in a car or a school bus, do you think the vehicle is going at a constant speed? Why or why not?

Some times, but you have to stop and go, and so it switches your time and constant speed.

CONCLUSION

Use evidence from your activity to answer the focusing question. Answer in a paragraph using complete sentences.

The person in my group had a constant speed. She was only off by just a tiny bit but it was still close to a constant speed.

EXTENSION

Draw a line on the graph to show a greater constant speed and a line to show a slower constant speed. Label the lines.

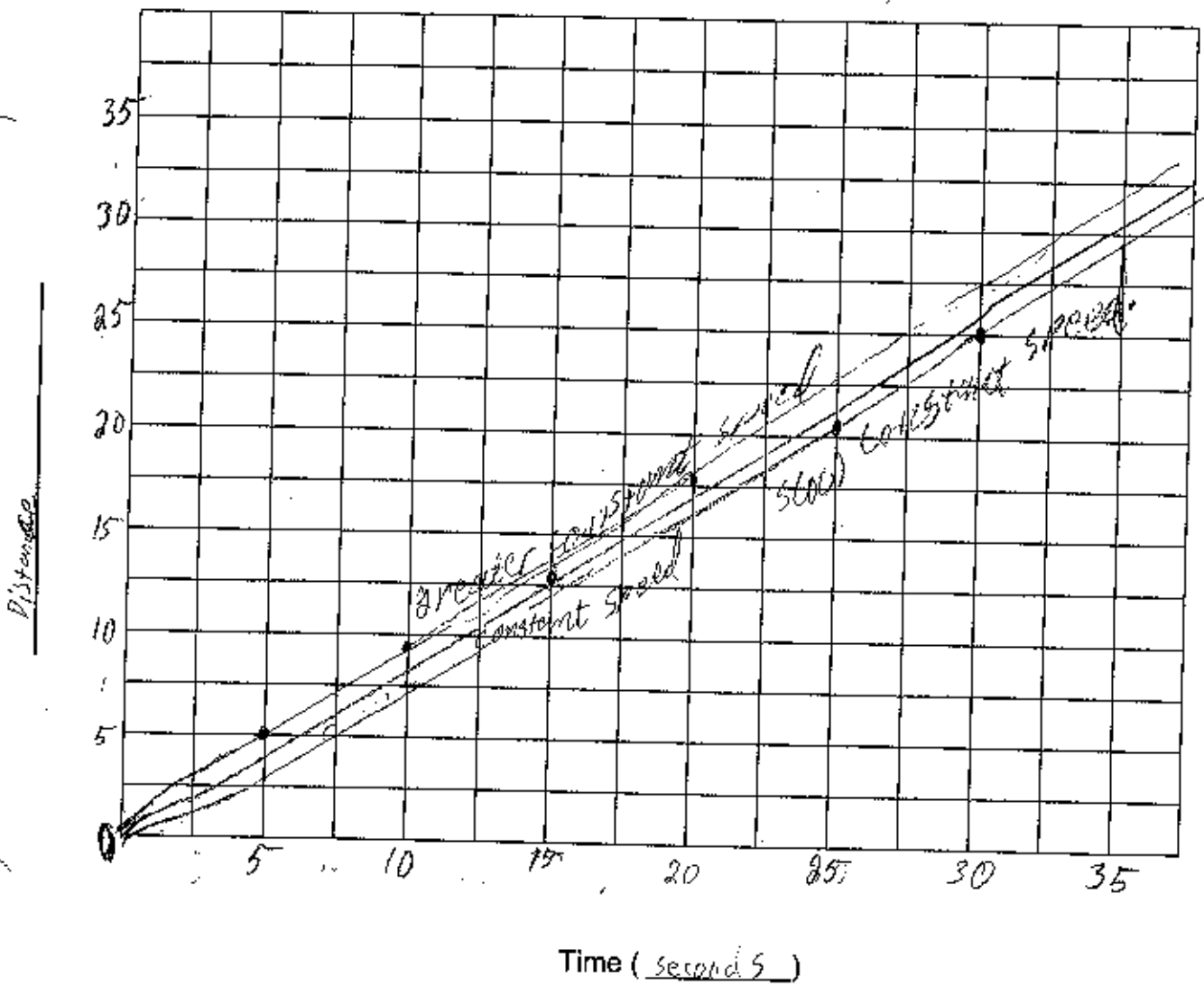
Your Team: clubs Walker: Jennifer Your job: Graphing

DATA TABLE: Round all times to the nearest second

Distance (m)	0m	5m	10m	15m	20m	25m	30m	35m
Trial #1 Time in sec	0	5	9	14	20	21	24	0
Trial #2 Time in sec	0	3	9	13	16	21	25	0
Trial #3 Time in sec	0	6	9	13	17	20	25	0
Average Time (seconds)	0	5	9	13	18	21	25	0

Make a graph of the distance and average time. DO NOT connect the dots!

Graph Title Constant speed



(4)

ANALYSIS QUESTIONS

1. What do you think a "constant" speed means?

the same speed at all times

2. What does a constant speed look like on a graph? Describe the line.

A straight line

3. Calculate the speed of the walker for the entire 35 m. Show your work with the correct units.

$30 \text{ m} / 35 \text{ s}$

4. Calculate the speed of the walker for the first 20 m of the walk. Compare this speed with the speed in Question 3.

17

5. When you drive home from school in a car or a school bus, do you think the vehicle is going at a constant speed? Why or why not?

no because there are stop places and different speed limits

CONCLUSION

Use evidence from your activity to answer the focusing question. Answer in a paragraph using complete sentences.

constant speed looks like a straight line on a graph. If the walker walks a certain speed for 20 meters it could be 50 or 100 per meter. if it is a constant speed on the graph the line would be all straight.

EXTENSION

Draw a line on the graph to show a greater constant speed and a line to show a slower constant speed. Label the lines.

(5)

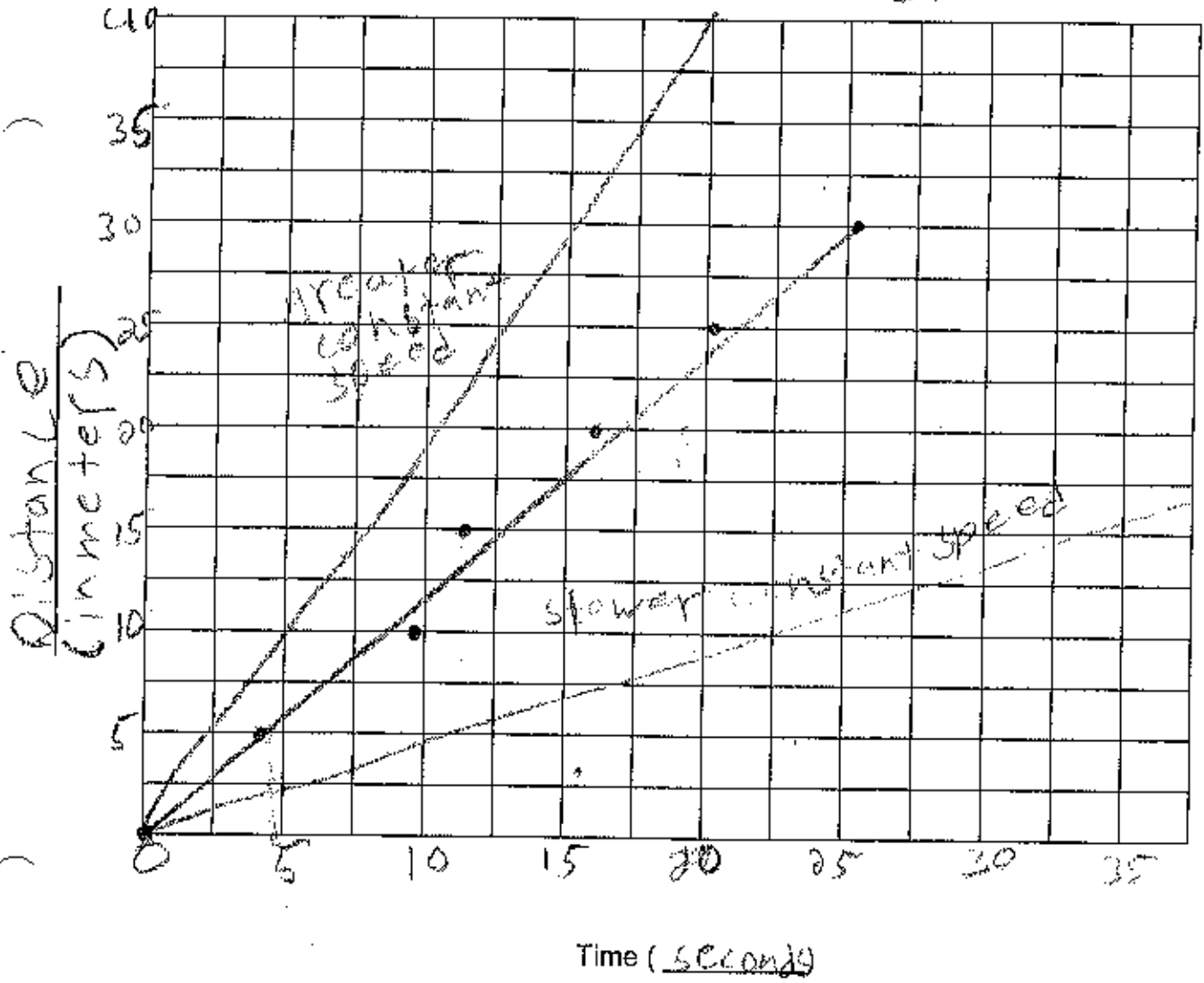
Your Team: Hear 15 Walker: _____ Your job: _____

DATA TABLE: Round all times to the nearest second

Distance (m)	0m	5m	10m	15m	20m	25m	30m	35m
Trial #1 Time in sec	0	4	10	11	17	20	—	
Trial #2 Time in sec	0	6	11	12	17	21	25	
Trial #3 Time in sec	0	2	8	13	16	20	26	
Average Time (seconds)	0	4	9.66	12	16.66	20.33	25.5	

Make a graph of the distance and average time. DO NOT connect the dots!

Graph Title Constant Speed



ANALYSIS QUESTIONS

1. What do you think a "constant" speed means?
a constant speed is at the same speed the whole time.
2. What does a constant speed look like on a graph? Describe the line.
A constant speed looks like a straight line that starts from zero and goes up ~~vertically~~ diagonally
3. Calculate the speed of the walker for the entire ³⁰35 m. Show your work with the correct units. Speed = $\frac{\text{meters}}{\text{seconds}}$ $\frac{30\text{m}}{15\text{s}} = 2\text{sec}$
4. Calculate the speed of the walker for the first 20 m of the walk. Compare this speed with the speed in Question 3. $\frac{\text{meters}}{\text{seconds}}$ $\frac{20\text{m}}{11\text{sec}} = 2\text{sec}$
5. When you drive home from school in a car or a school bus, do you think the vehicle is going at a constant speed? Why or why not?
I do think that it is going at a constant speed because there is a speed limit.

CONCLUSION

Use evidence from your activity to answer the focusing question. Answer in a paragraph using complete sentences.

Constant walking speed looks like a vertical line on the graph from 0 sec to 15 sec on the graph the dots are going to go in a straight line

EXTENSION

Draw a line on the graph to show a greater constant speed and a line to show a slower constant speed. Label the lines. on the graph on the back

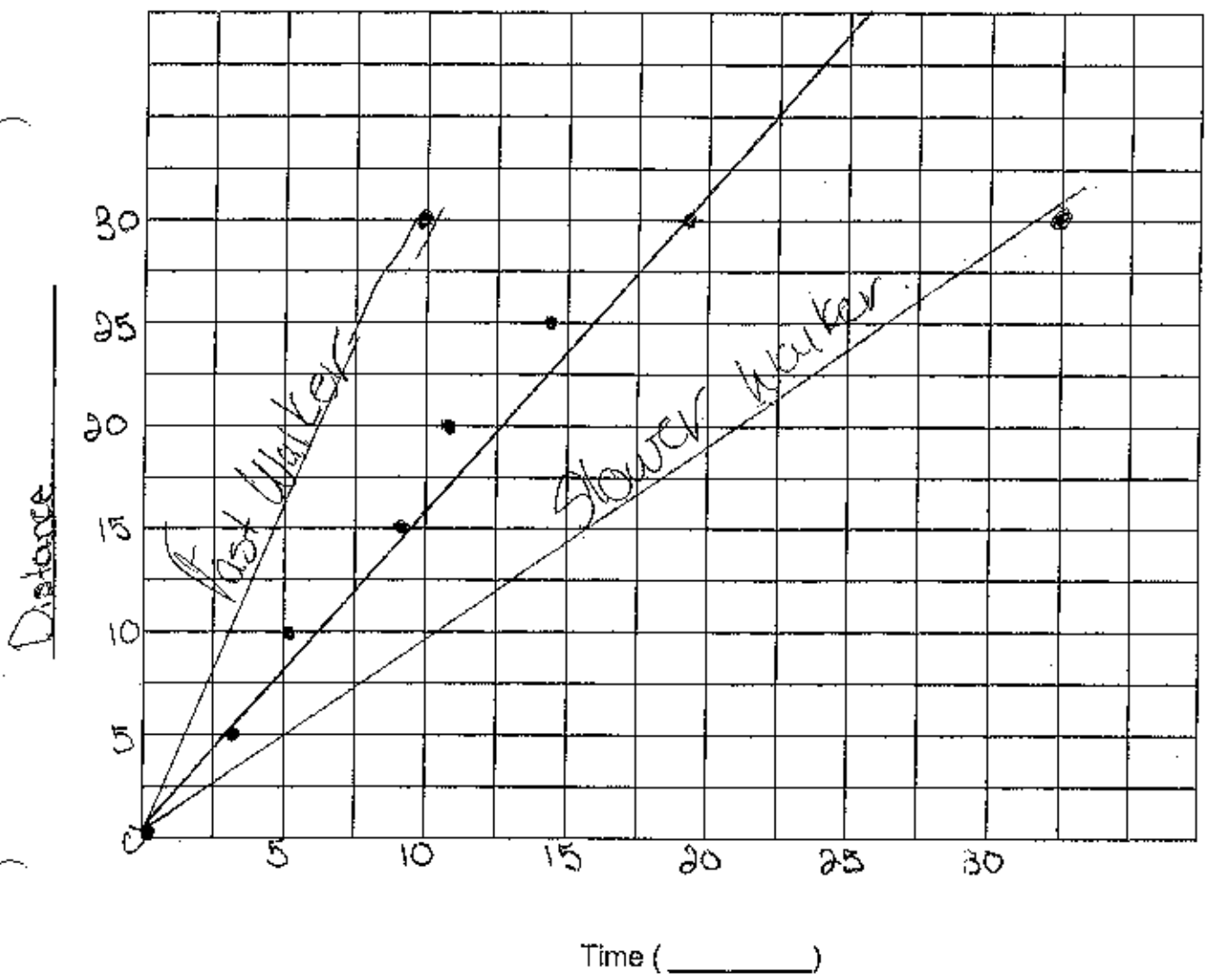
Your Team: Cuba Walker: Angelo Your job: time x 5m

DATA TABLE: Round all times to the nearest second

Distance (m)	0m	5m	10m	15m	20m	25m	30m	35m
Trial #1 Time in sec	0 sec	2 sec	5 sec	8 sec	11 sec	15 sec	18 sec	
Trial #2 Time in sec	0 sec	2 sec	5 sec	7 sec	10 sec	11 sec	17 sec	
Trial #3 Time in sec	0 sec	4 sec	6 sec	9 sec	13 sec	18 sec	19 sec	
Average Time (seconds)	0 sec	3 sec	5 sec	8 sec	11 sec	14 sec	18 sec	

Make a graph of the distance and average time. DO NOT connect the dots!

Graph Title Average walking time



ANALYSIS QUESTIONS

1. What do you think a "constant" speed means?

I think "constant" speed means that you are only going that one speed constantly.

2. What does a constant speed look like on a graph? Describe the line.

A constant speed on a graph would look like one long straight narrow line.

3. Calculate the speed of the walker for the entire 35m. Show your work with the correct units.

$$\begin{array}{r} 22 \\ + 22 \\ \hline 44 \end{array}$$
 3168
44 is the speed of the walker.

4. Calculate the speed of the walker for the first 20 m of the walk. Compare this speed with the speed in Question 3.

$$\begin{array}{r} 15 \\ + 17 \\ \hline 32 \end{array}$$
 3168
32 is the speed.

$$\begin{array}{r} 112 \\ - 84 \\ \hline 28 \end{array}$$
 3168
28 compared

5. When you drive home from school in a car or a school bus, do you think the vehicle is going at a constant speed? Why or why not?

At times yes it may be going a constant speed but the speed limit may change or you might just go different speeds.

CONCLUSION

Use evidence from your activity to answer the focusing question. Answer in a paragraph using complete sentences.

What does constant speed look like on a graph?
Constant speed on a graph would look like just a straight line. It would look like a long narrow perfectly straight line. It would look this way because constant speed is only one speed constantly. This is what "constant" speed would look like on a graph.

EXTENSION

Draw a line on the graph to show a greater constant speed and a line to show a slower constant speed. Label the lines.

on graph

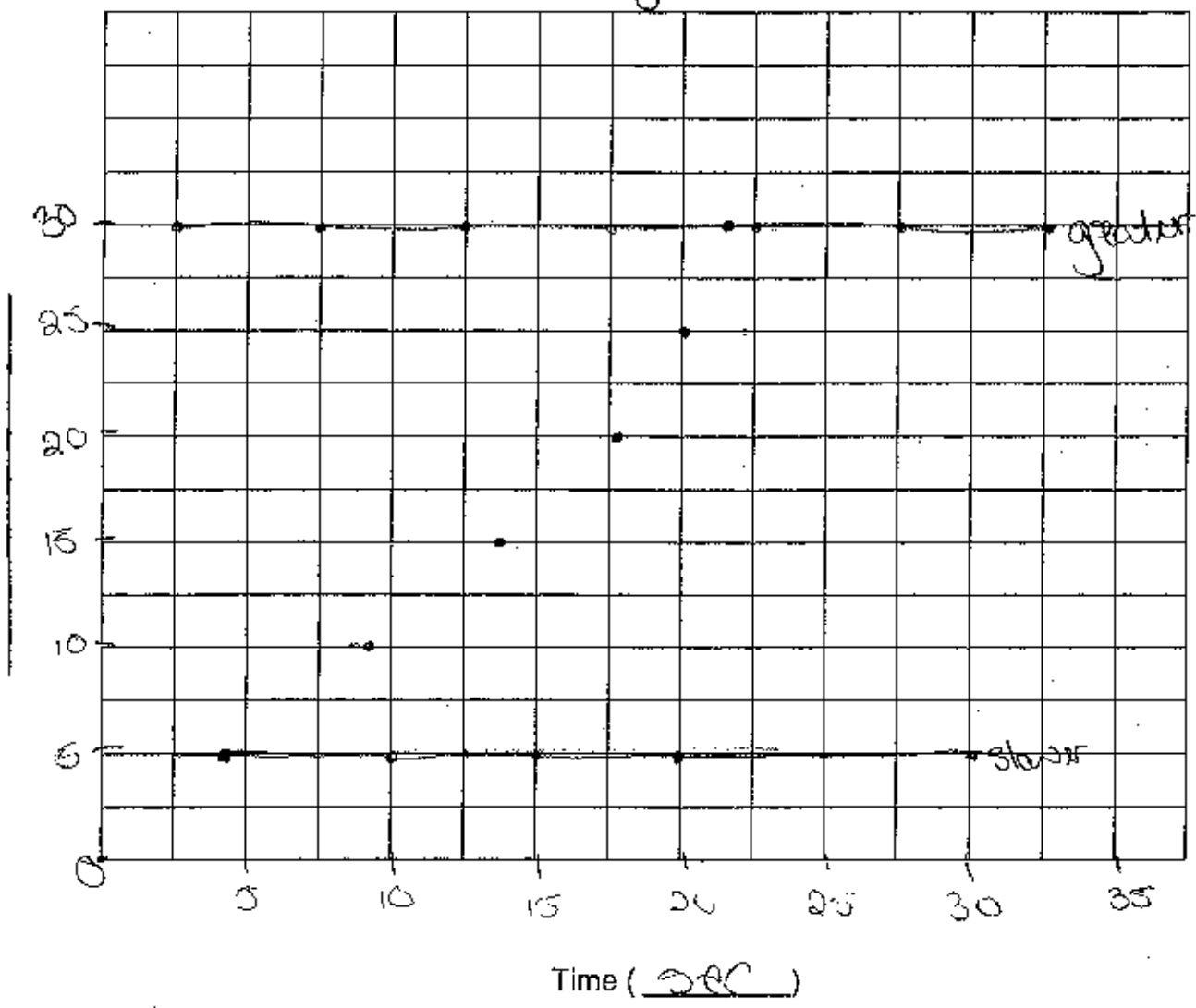
Your Team: ♡ Walker: Sabrina Your job: Walker

DATA TABLE: Round all times to the nearest second

Distance (m)	0m	5m	10m	15m	20m	25m	30m	35m
Trial #1 Time in sec	0	4sec	8sec	11sec	15sec	18sec	22sec	X
Trial #2 Time in sec	0	5sec	9sec	13sec	17sec	21sec	22sec	X
Trial #3 Time in sec	0	4sec	8sec	13sec	16sec	19sec	24sec	X
Average Time (seconds)	0	4	8	13	16	19	22	X

Make a graph of the distance and average time. DO NOT connect the dots!

Graph Title Averages of Sabrina



ANALYSIS QUESTIONS

1. What do you think a "constant" speed means?

A speed that doesn't change
at all.

2. What does a constant speed look like on a graph? Describe the line.

A straight horizontal
line

3. Calculate the speed of the walker for the entire 35 m. Show your work with the correct units.

$$\frac{28 + 26 + 25}{3} = 26$$

4. Calculate the speed of the walker for the first 20 m of the walk. Compare this speed with the speed in Question 3.

$$\frac{20 + 16 + 17}{3} = 18$$

Difference between
26 and 18 = 7

5. When you drive home from school in a car or a school bus, do you think the vehicle is going at a constant speed? Why or why not?

No because it gets
slower when it
turns

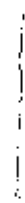
CONCLUSION

Use evidence from your activity to answer the focusing question. Answer in a paragraph using complete sentences.

In our LAB, we had people walk 30m.
We split into 3 groups and calculated
the average of their speed. In our group,
Jennifer walked an average of 29 sec. in
30 m.

EXTENSION

Draw a line on the graph to show a greater constant speed and a line to show a slower constant speed. Label the lines.



Your Team: clubs Walker: Jenn. Fer Your job: Measure at 10m mark

DATA TABLE: Round all times to the nearest second

Distance (m)	0m	5m	10m	15m	20m	25m	30m	35m
Trial #1 Time in sec	0.0	5	9	14	20	21	24	
Trial #2 Time in sec	0.0	3	9	13	16	21	25	
Trial #3 Time in sec	0.0	6	9	13	17	20	25	
Average Time (seconds)	0.0	5	9	13	18	21	25	

Make a graph of the distance and average time. DO NOT connect the dots!

Graph Title walking constant speed

