Merit Tutoring

WORKSHEET 47

Features and Basic Interpretation of Line Graphs

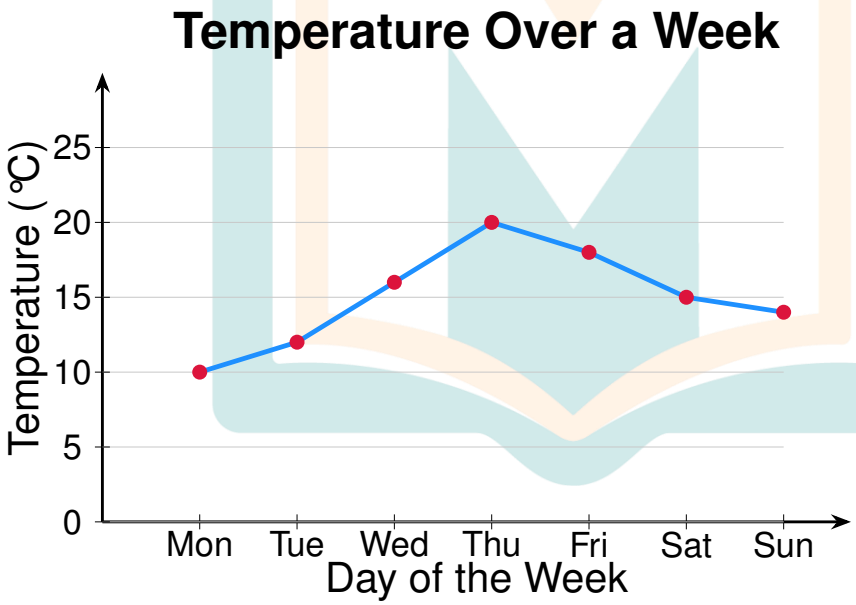
Year 5 Mathematics — Data & Chance Strand

Australian Curriculum v9.0 — AC9M5ST02

Name: _____ **Date:** _____

Section 1: Fluency - Parts of a Graph

Question 1: Look at the line graph below. What is the title of this line graph?



Answer: _____

Question 2: What does the x-axis (horizontal axis) show?

Answer: _____

Question 3: What does the y-axis (vertical axis) show?

Answer: _____

Question 4: What is the scale on the y-axis? (How much does each line represent?)

Answer: _____

Question 5: How many days are shown on this graph?

Answer: _____

Question 6: Why do we use dots (points) on a line graph?

Answer: _____

Question 7: True or False: The x-axis always shows time on a line graph.

Answer: _____

Question 8: What unit is temperature measured in on this graph?

Answer: _____

Line-Graph Lizard Says:

"You're a Line Graph Legend!"

Joke Time: Why was the line graph so tired?
Because it had too many ups and downs!

Section 2: Reasoning - Reading Specific Values

Question 9: Using the temperature graph above, what was the temperature on Wednesday?

Answer: _____

Question 10: On which day was the temperature the highest?

Answer: _____

Question 11: What was the lowest temperature recorded during the week?

Answer: _____

Question 12: What was the temperature on Saturday?

Answer: _____

Question 13: How much warmer was Thursday than Monday?

Answer: _____

Question 14: On which two consecutive days did the temperature decrease the most?

Answer: _____

Question 15: Look at the graph. What was the temperature range during

the week? (Difference between highest and lowest)

Answer: _____

Data Detective Dog Says:

"You're Reading Data Like a Pro!"

Joke Time: What do you call a graph that tells jokes?
A line of comedy!

Section 3: Challenge - Identifying Trends

Question 16: Describe what happened to the temperature from Monday to Thursday. Did it increase, decrease, or stay the same?

Answer: _____

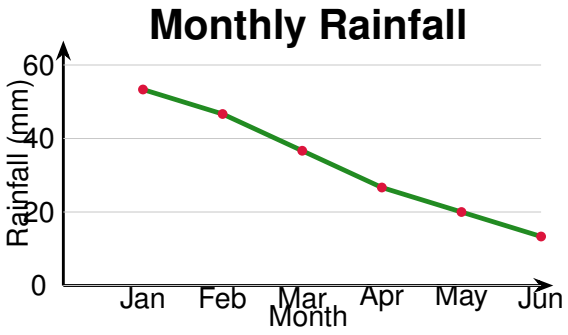
Question 17: What trend do you notice from Thursday to Sunday?

Answer: _____

Question 18: If the pattern from Saturday to Sunday continues, predict the temperature for Monday of the next week.

Answer: _____

Question 19: Look at the graph showing rainfall. Describe the overall trend.



Answer: _____

Question 20: Why is a line graph useful for showing changes over time?

Answer: _____

Question 21: Challenge: Between which two months did the rainfall decrease the most?

Answer: _____

Question 22: Look at both graphs (temperature and rainfall). Which one shows a more consistent pattern? Explain.

Answer: _____

Trending Tiger Says:

"You're Spotting Trends Like a Champion!"

Joke Time: Why did the data go to the gym?
To work on its upward trends!

Excellent work! Check your answers on the next page.

WORKSHEET 47
ANSWER KEY

Section 1: Fluency - Parts of a Graph

1. Temperature Over a Week
2. Day of the Week (or Days)
3. Temperature (℃) or Temperature in degrees Celsius
4. 5 degrees Celsius (each line represents 5℃)
5. 7 days
6. To show exact data values or measurement points
7. False (the x-axis often shows time, but not always)
8. Degrees Celsius (℃)

Section 2: Reasoning - Reading Specific Values

9. 16℃ (approximately)
10. Thursday
11. 10℃ (Monday)
12. 15℃ (approximately)
13. 10℃ warmer (20℃ - 10℃ = 10℃)
14. Thursday to Friday (or Friday to Saturday)
15. 10℃ (20℃ - 10℃ = 10℃)

Section 3: Challenge - Identifying Trends

16. It increased/went up (from 10℃ to 20℃)
17. The temperature decreased/went down
18. Around 13℃ or slightly lower (answers may vary with reasoning)
19. The rainfall is decreasing over time/going down each month
20. It clearly shows how values change over time; you can see trends and patterns easily
21. February to March (or January to March overall)
22. The rainfall graph shows a more consistent pattern (steady decrease); temperature fluctuates more

WORKSHEET 48

Comparing Data and Drawing Line Graphs

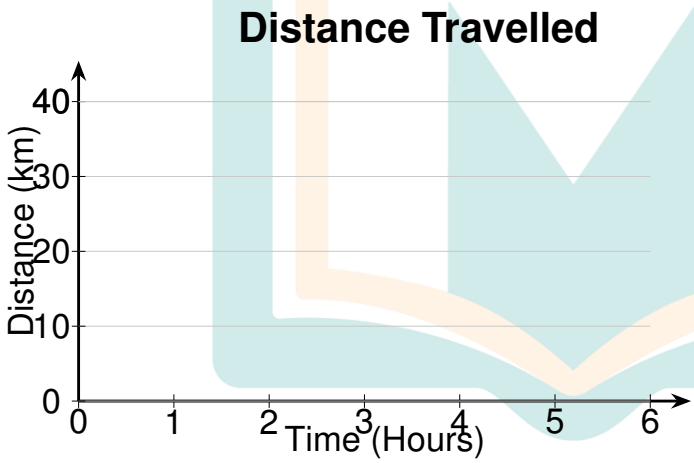
Year 5 Mathematics — Data & Chance Strand

Australian Curriculum v9.0 — AC9M5ST02

Name: _____ **Date:** _____

Section 1: Fluency - Plotting Points

Question 1: Plot the following points on the grid and join them with a line: (1, 10), (2, 20), (3, 30), (4, 40).



Answer: _____

Question 2: What pattern do you notice in the data points you plotted?

Answer: _____

Question 3: Using your graph, how far would the car travel in 5 hours if the pattern continues?

Answer: _____

Question 4: Plot these points and join them: (0, 5), (1, 10), (2, 15), (3, 20). Use the grid below.

Answer: _____

Question 5: What is the relationship between x and y in Question 4?

Answer: _____

Question 6: True or False: When plotting points, you always read the x-value first, then the y-value.

Answer: _____

Question 7: If a line on a graph goes straight up, what does this tell you about the data?

Answer: _____

Question 8: What would the coordinates be for 6 hours on the distance graph if the pattern continues?

Answer: _____

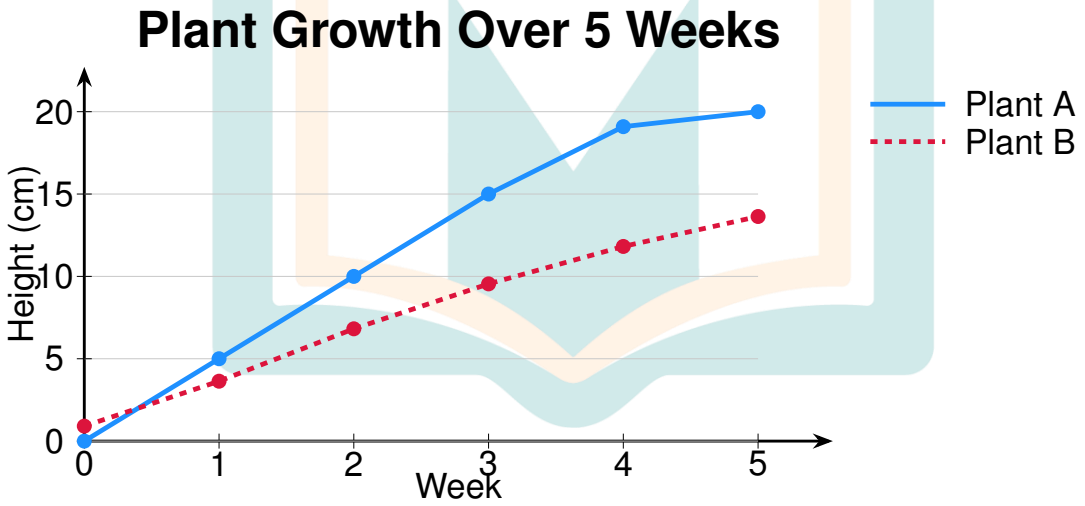
Plotting Parrot Says:

"You're a Point-Plotting Pro!"

Joke Time: Why did the point go to school?
To get to the right coordinates!

Section 2: Reasoning - Comparing Two Lines

Question 9: Look at the graph showing plant growth. Which plant was taller after 4 weeks?



Answer: _____

Question 10: How much did Plant A grow between Week 1 and Week 2?

Answer: _____

Question 11: Which plant grew faster overall?

Answer: _____

Question 12: What was the height of Plant B at Week 3?

Answer: _____

Question 13: By how many centimeters is Plant A taller than Plant B at Week 5?

Answer: _____

Question 14: During which week did Plant A have its biggest growth spurt?

Answer: _____

Question 15: If both plants continue growing at the same rate, estimate their heights at Week 6.

Answer: _____

Comparing Koala Says:

"You're a Comparison Champion!"

Joke Time: Why did the two line graphs become friends? They had a lot in common... data points!

Section 3: Challenge - Practical Conclusions

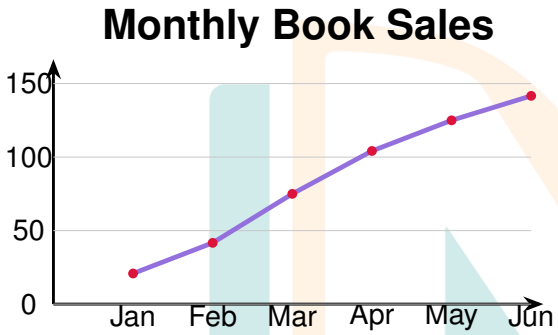
Question 16: Look at the distance graph from Question 1. If the car continues at the same speed, how far would it travel in 7 hours?

Answer: _____

Question 17: Why are line graphs better than column graphs for showing changes over time?

Answer: _____

Question 18: Look at this graph showing book sales. What conclusion can you draw?



Answer: _____

Question 19: Challenge: If Plant A and Plant B from Question 9 are graphed on the same axes, what advantage does this give us?

Answer: _____

Question 20: A line graph shows temperature dropping from 25℃ to 15℃ over 5 hours. What is the average temperature drop per hour?

Answer: _____

Question 21: Challenge: Create your own simple line graph showing how many hours you sleep each night for one week. What trend do you notice?

Answer: _____

Question 22: Look at both the book sales and plant growth graphs. Which one shows a steadier increase? Explain.

Answer: _____

Data Driver Dolphin Says:

"You're Driving Through Data Like a Pro!"

Joke Time: What's a graph's favorite type of music? Heavy data!

Outstanding work! Check your answers on the next page.

WORKSHEET 48
ANSWER KEY

Section 1: Fluency - Plotting Points

1. Points plotted correctly with line connecting them
2. The distance increases by 10 km each hour; it's a straight line going up
3. 50 km
4. Points plotted correctly with line connecting them
5. y = 5x (or y is 5 times x, or multiply x by 5 to get y)
6. True
7. The data is increasing very rapidly/steeply
8. (6, 60)

Section 2: Reasoning - Comparing Two Lines

9. Plant A (approximately 16-17 cm tall)
10. Approximately 6 cm (from about 5 cm to 11 cm)
11. Plant A
12. Approximately 7-8 cm
13. Approximately 7 cm (22 cm - 15 cm)
14. Week 3 to Week 4 (or between Week 1 and Week 2)
15. Plant A: approximately 23-24 cm; Plant B: approximately 16-17 cm

Section 3: Challenge - Practical Conclusions

16. 70 km
17. Line graphs show the continuous change and make it easier to see trends and patterns over time
18. Book sales are increasing/growing each month; business is improving
19. We can easily compare the two plants and see which grows faster/better
20. 2℃ per hour (10℃ ÷ 5 hours = 2℃ per hour)
21. Student's own graph and observation
22. Book sales shows a steadier increase (more consistent upward trend)

Brilliant!

You've mastered Line Graphs!
Keep up the fantastic work in Year 5 Maths!