



GRADE 8 · FUNCTIONS · PRACTICE

READING A GRAPH QUALITATIVELY

Today's goal: I can describe qualitatively the functional relationship between two quantities by analysing a graph, including where the function is increasing or decreasing, linear or non-linear and sketch a graph that exhibits the qualitative features of a function that has been described verbally.



Pick your peppers!

Everyone does Mild & Medium. Then climb as high as you can.



Mild

Tan the Turtle



Medium

Digit the Fox



Spicy

Blaze the Dragon



Extra Spicy

Pi the Owl



REMEMBER

Read the axes first. Flat on a distance-time graph means stopped. A flattening curve is still increasing. Steadily means straight.



MILD

Tan the Turtle: Slow and steady. Warm up!

1 On a distance-time graph, what does a steeper section mean?

Answer



OOPS ALERT

Careful on #1! The slip Mr DJ sees most: Said “going uphill”.



MEDIUM

Digit the Fox: Stretch your brain.

- 2 Sketch: “falls steadily, then stays constant.”

Answer

- 3 Sketch: “rises slowly at first, then faster and faster.”

Answer

- 4 Describe a real situation whose graph would rise, flatten, and stay flat.

Answer



SPICY

Blaze the Dragon: Bring the heat!

- 5 A graph of water in a bath rises, is flat, then falls to zero. Describe what happened.

Answer

- 6 A graph increases the whole way but gets less steep. Is it increasing or decreasing?

Answer

- 7 Explain the difference between a graph that is falling and one that is rising more slowly.

Answer

- 8 A temperature graph is flat for an hour. Does that mean the thermometer broke?

Answer



EXTRA SPICY

Pi the Owl: Big-brain challenge.

9 Why does “steadily” mean a straight line rather than a curve?

Answer



How did this sheet feel?

☐

Easy for me

☐

Just right

☐

Made me think

Stuck? Watch Mr DJ explain it

Step-by-step video lessons on YouTube: [youtube.com/
@MathWithMrDJ](https://www.youtube.com/@MathWithMrDJ)

Brain break: daily puzzles

Three new math puzzles every day, free:
puzzles.mathwithmrdj.com