

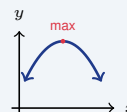
Interpreting Graphs of Functions

Name: _____ Date: _____ Score: _____ / 18

Quick Review and Helpful Hints

A graph tells a story. Where it *rises* left to right, the function is increasing; where it *falls*, it is decreasing; *flat* means constant. The *y*-intercept is the starting value, and the highest or lowest points are the maximum or minimum.

▶ **Example:** A graph rises from left to right. Is the function increasing or decreasing? **Work:** As x gets larger, y gets larger too, so the graph is going up.
 ★ **Answer:** Increasing



Rises, peaks (max), then falls.

◆ Practice Problems

Answer each question about a graph.

- | | |
|--|--|
| <p>1. Graph rises left-to-right: increasing or decreasing? _____</p> <p>2. Graph falls left-to-right: which? _____</p> <p>3. A flat horizontal graph is? _____</p> <p>4. Where a graph crosses the y-axis is the? _____</p> <p>5. The highest point of a graph is the? _____</p> <p>6. The lowest point is the? _____</p> <p>7. Where a graph crosses the x-axis, $y = ?$ _____</p> | <p>8. A line with positive slope is? _____</p> <p>9. A line with negative slope is? _____</p> <p>10. The value of a function at $x = 0$ is its? _____</p> <p>11. A U-shaped parabola opening up has a? _____</p> <p>12. A graph that peaks then falls has a? _____</p> <p>13. On a distance-time graph, a steeper line means? _____</p> <p>14. Where a profit graph crosses zero, profit =? _____</p> |
|--|--|

◆ Word Problems

15. A runner's distance-time graph is flat for a while. What is the runner doing? _____
16. A temperature graph rises all morning. The temperature is doing what? _____
17. A ball's height graph goes up then down. What is the top point called? _____
18. Where a profit graph crosses zero (break-even), the profit equals what? _____



Answer Keys

- | | | |
|-------------------|--------------------|----------------|
| 1. Increasing | 7. 0 | 13. faster |
| 2. Decreasing | 8. Increasing | 14. 0 |
| 3. Constant | 9. Decreasing | 15. resting |
| 4. y -intercept | 10. y -intercept | 16. Increasing |
| 5. maximum | 11. minimum | 17. maximum |
| 6. minimum | 12. maximum | 18. 0 |

Step-by-Step Explanations

1. Start by naming the process: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is Rising means y grows as x grows: increasing. So the final answer is Increasing.

2. A good way to think about this is: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is Falling means y drops as x grows: decreasing. So the final answer is Decreasing.

3. Step by step: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is No change in height means constant. So the final answer is Constant.

4. Take it one move at a time: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is That crossing point is the y -intercept. So the final answer is y -intercept.

5. Start by naming the process: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is The peak is the maximum. So the final answer is maximum.

6. A good way to think about this is: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is The bottom is the minimum. So the final answer is minimum.

7. Step by step: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is On the x -axis the height is 0. So the final answer is 0.

8. Take it one move at a time: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is Positive slope goes up: increasing. So the final answer is Increasing.

9. Start by naming the process: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is Negative slope goes down: decreasing. So the final answer is Decreasing.

10. A good way to think about this is: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is At $x = 0$ the output is the y -intercept. So the final answer is y -intercept.

11. Step by step: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is An upward U has a lowest point: minimum. So the final answer is minimum.

12. Take it one move at a time: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is A peak before falling is a maximum. So the final answer is maximum.

13. Start by naming the process: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is A steeper line covers distance faster. So the final answer is faster.

14. A good way to think about this is: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is On the x -axis the value is 0. So the final answer is 0.

15. Step by step: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is A flat distance graph means no motion: resting. So the final answer is resting.

16. Take it one move at a time: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is Rising temperature means increasing. So the final answer is Increasing.

17. Start by naming the process: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is The top of the path is the maximum. So the final answer is maximum.

18. A good way to think about this is: Read what the problem is asking, choose the matching rule, write the setup, and then simplify one step at a time. The setup/work is Break-even means profit = 0. So the final answer is 0.



Want Even More TSIA2 Math Practice?



The Most Comprehensive TSIA2 Math Preparation Bundle

Prep books, workbooks, and full-length practice tests
Complete review, detailed explanations, and realistic test practice



Scan Me

Prep Books
Workbooks
Practice Tests

Important: These TSIA2 Math resources are made for extra practice after the worksheet. Scan the QR code above for the complete TSIA2 Math preparation bundle.

Skill Review

- ✓ Builds number sense, algebra, geometry, and data skills
- ✓ Supports steady review before the TSIA2 test
- ✓ Great for tutoring, homework, and independent practice

Build the foundation.

Test Practice

- ✓ Full-length practice tests for realistic pacing
- ✓ Detailed answer explanations for every question
- ✓ Useful after students finish topic worksheets

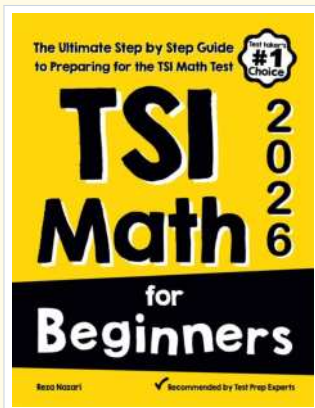
Practice with purpose.

Confidence

- ✓ Turns mistakes into targeted review
- ✓ Helps students see progress over time
- ✓ Keeps TSIA2 preparation organized and calm

Move forward prepared.

STUDENT FAVORITE • Master TSIA2 Math From the Ground Up



TSI Math for Beginners

The Ultimate Step-by-Step Guide to Preparing for the TSI Math Test

Written by a top math teacher and aligned with the latest TSIA2 Math test. From fractions and percents to algebra and geometry — explained the easy way.

- ✓ **Complete coverage** of every TSIA2 Math topic — perfect companion to these worksheets
- ✓ **Step-by-step explanations** with worked examples on every topic
- ✓ **QR codes in every chapter** for free video lessons & bonus practice
- ✓ **2 full-length practice tests** with detailed answer keys
- ✓ Perfect for self-study or the classroom

* **STUDENT'S #1 CHOICE**

Teacher-recommended • trusted TSIA2

prep

→ **DOWNLOAD INSTANTLY**



Scan Me

Instant download • any device

□ **FIND ON AMAZON**



Scan Me

Paperback on Amazon

Pair these free worksheets with *TSI Math for Beginners* and you have a complete self-paced TSIA2 Math path — concept lessons, daily practice, and full exam-style reviews. → [EffortlessMath.com](https://www.EffortlessMath.com)