



The GED Mathematics Test

Special Topics in Algebra and Geometry



Margaret A. Rogers, M.A.

ABE/GED Teacher

Adult School Administrator

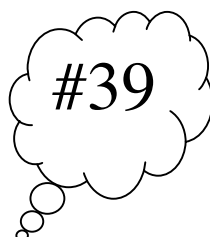
Education Consultant

California Distance Learning Project

www.cdlponline.org

GED

Video Partner



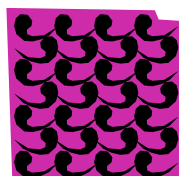
#39 Passing the GED Math Test

Life is like an ever-shifting kaleidoscope ~ a slight change and all patterns alter.
Sharon Salzberg

Video 39 Focus: how you use patterns and coordinate grids in math and life.

You Will Learn From Video 39:

- How to use patterns to solve problems.
- How to locate points on a coordinate grid.
- How to plot points on a coordinate grid.
- That solution sets can be displayed on the coordinate plane.
- How to find the slope of a line.



Words You Need to Know:

While viewing the video, put the letter of the meaning by the correct vocabulary word.

Answers are on page 20.

- | | |
|-----------------------|--|
| _____ 1. pattern | a. the point on a coordinate grid plotted at (0, 0) |
| _____ 2. ordered pair | b. steepness or angle of a line |
| _____ 3. origin | c. basic units or shapes that repeat themselves |
| _____ 4. axes | d. pair of coordinates to plot a point (x, y) |
| _____ 5. slope | e. horizontal and vertical lines that form the coordinate plane grid |



Points to Remember:

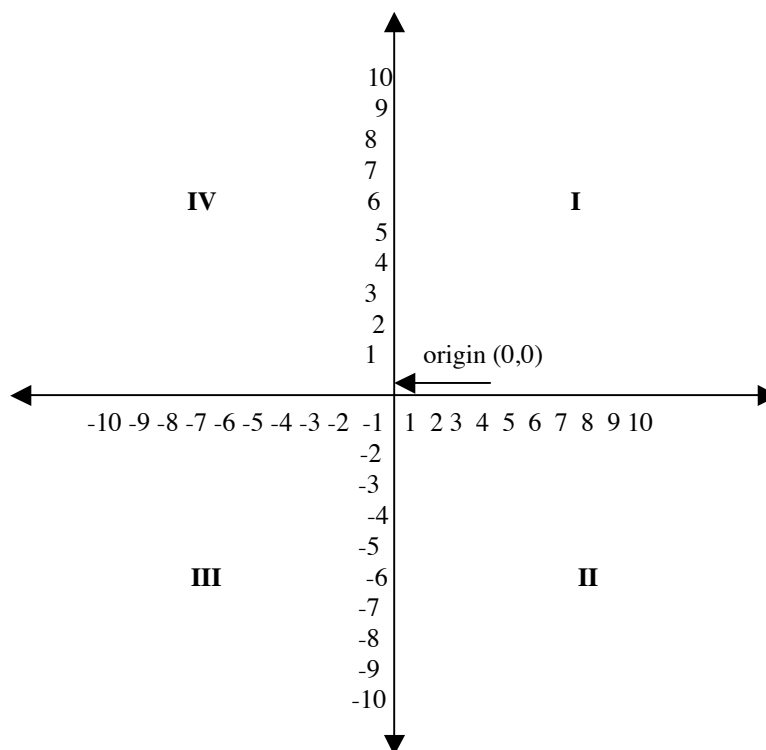
- The ability to recognize patterns is a math skill.
- Look for patterns among solutions to help see the big picture.
- Understanding the coordinate plane is important for algebra, geometry, and the GED Math Test.
- Graphing solution sets to equations gives you a picture.

Introduction to Special Topics in Algebra and Geometry

There are some special topics in algebra and geometry that are tested on the GED Math Test. These topics include patterns, the coordinate plane, and slope of the line.

A **pattern** is a concept that repeats systematically. It can be linear or spatial, simple or complex, artistic or mechanical. Patterns frequently occur in mathematics. They also occur in nature. Looking for patterns can often help to solve problems in math and in life as well. For example, if someone is habitually late, that pattern can cause problems for family and work. Breaking the pattern of lateness and becoming more punctual will help the person succeed.

The **coordinate plane** is used in both algebra and geometry. Coordinate geometry is tested on the GED Math Test. The coordinate plane is a flat surface divided by a horizontal number line and a vertical number line in order to form four quadrants, or sections. The number lines intersect at the point of origin (0, 0). The four quadrants are numbered with Roman numerals starting with the top right side and progressing clockwise.



The **slope of a line** is the measure of its steepness or incline. The formula to find the slope of a line is found on the formula page of the GED Math Test. You may have to compute the slope of a line that is formed by points plotted on the coordinate plane. Engineers and builders use slope of the line in their daily work. It is also important to hikers and cyclists when choosing trails or roads for recreation.

Patterns



Patterns are characterized by repetition. There are many kinds of patterns, but each has in common that it repeats itself in some way.

One of the best examples in mathematics is found in division of decimals. When changing a fraction to a decimal, divide the numerator by the denominator. For example to change $1/3$ to a decimal, is $1 \div 3 = .3333333333333333...$ All fractions in the set of rational numbers will become a repeating decimal. Other examples are $4/9 = .4444444444...$ and $5/11 = .45454545...$

Change the following fractions to decimals. Continue to divide until you see the pattern of the repeating decimal.

$2/3$

$5/9$

$5/6$

$7/12$

Answers are on page 20.

$1/11$

$3/7$

Many patterns are linear. See if you can find the pattern in the following sequences. You will know if you recognize the pattern if you can predict the next items in the sequence.

Answers are on page 20.

1, 3, 5, 7, 9, _____, _____, _____, _____, _____ ...

_____, _____, _____, _____, _____, 1, 3, 5, 7, 9 ...



abba, abbb, abbc, abbd, abbe, _____, _____, _____, _____, _____ ...

∇ , Σ , ∇ , Σ , ∇ , Σ , ∇ , Σ , _____, _____, _____, _____, _____, _____ ...

Choose one of the patterns above and explain how the pattern works and how you knew what came next.

Now try some more difficult patterns.

Answers are on page 20.

0, 7, 14, 21, 28, _____, _____, _____, _____, _____ ...

1, 1, 2, 3, 5, 8, 13, _____, _____, _____, _____, _____ ...

XXO, XXXOO, XXXXOOOO, XXXXXOOOOOOOO, _____...

2, 5, 11, 23, 47, _____, _____, _____, _____, _____...

How would you describe what is happening in the last pattern?

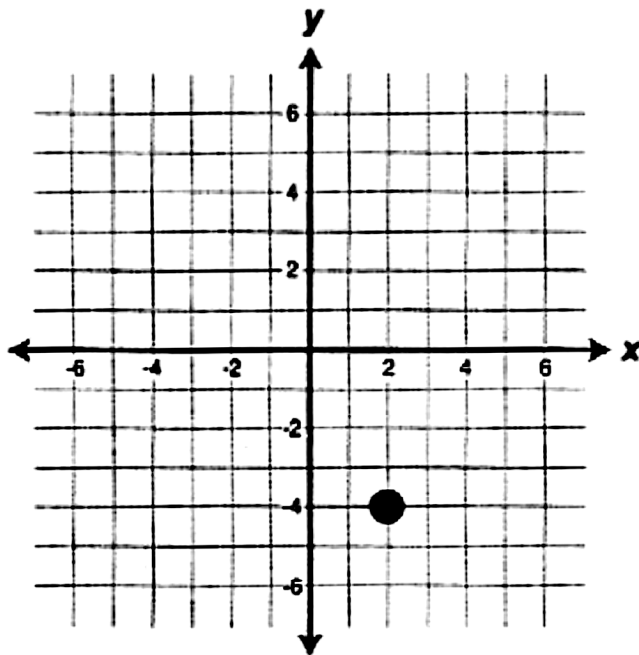
Coordinate Plane

The coordinate plane is a flat surface divided by a horizontal number line and a vertical number line in order to form four quadrants, or sections. The number lines intersect at the point of origin $(0, 0)$.

Ordered Pairs

Ordered pairs are coordinates that correspond to a number on the horizontal number line and another number on the vertical number line. An ordered pair is written in parentheses with the horizontal number first, separated by a comma, and then the vertical number. For example, the ordered pair $(2, -4)$ is plotted on the coordinate plane grid by:

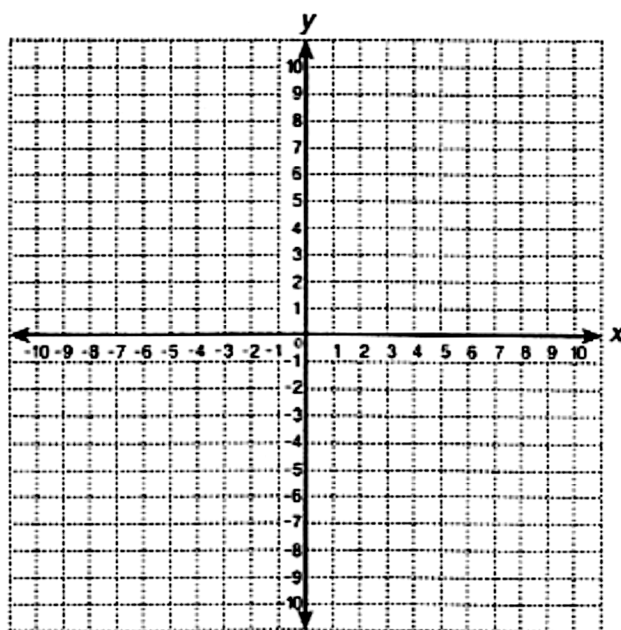
1. start at the origin $(0, 0)$
2. locate 2 on the horizontal number line
3. from 2, move down to -4
4. the intersection of those two lines is the location of the ordered pair, $(2, -4)$



Practice locating ordered pairs on a coordinate plane grid by plotting the following pairs on the grid on the next page.

Answers are on page 20.

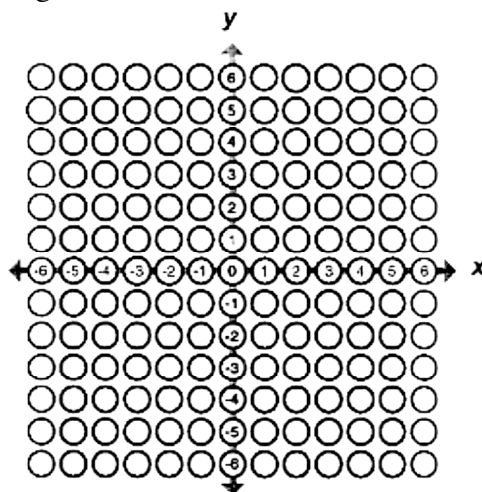
$(3, 3)$ $(1, 5)$ $(-2, 3)$ $(-4, 2)$ $(-5, -2)$ $(0, 5)$



When you take the official GED Math Test, you may have to plot ordered pairs on the coordinate plane grid. You may have one or more questions that you answer in this alternate format. Answers are on page 21.

Plot the following ordered pairs on the grid below.

1. Bubble the circles for these ordered pairs: $(2,3)$, $(-2, 3)$, $(2,-3)$ and $(-2,-3)$.
2. If you connect each of these points with straight lines to each of the other points, what geometric figures are formed?



- 1) square and hexagons
- 2) triangles and rectangle
- 3) circles
- 4) squares and pentagons
- 5) none of the above

Graphing Equations

The solutions to algebraic equations with two unknowns are often plotted on the coordinate plane. Different types of equations form different patterns such as straight lines or curved lines. Linear equations, when graphed, form straight lines. Look at the equation $x + 2 = y$. This is an equation where the y variable is dependent on the x variable. If $x = 0$, $y = 2$. If $x = 1$, $y = 3$, etc.

Many number pairs will solve this equation. Fill in the chart below to find some of the possible answers. Then record the ordered pairs in the space to the right of the chart.

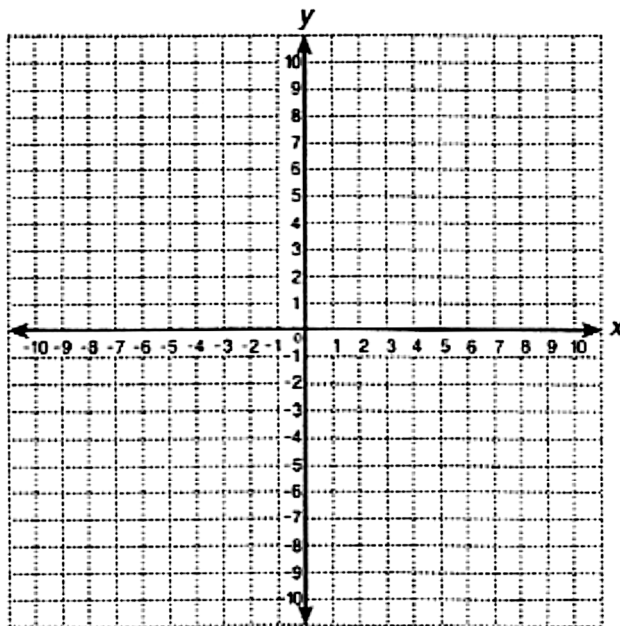
$$x + 2 = y$$

X	Y
0	2
1	3
2	
3	
5	
	8
	10

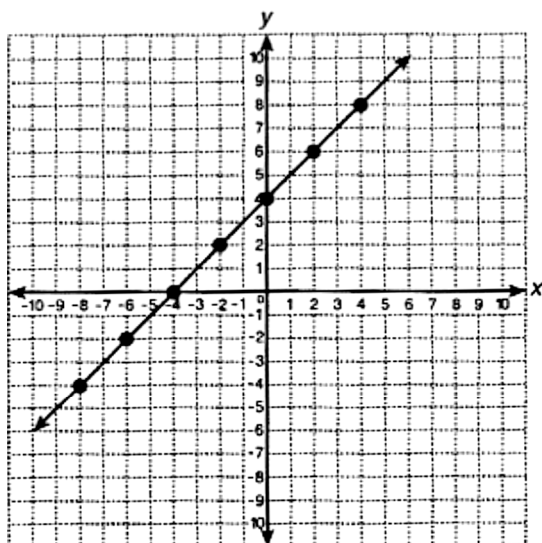
Record the ordered pairs here:

Now graph the ordered pairs that are formed by this solution set on the coordinate grid below. Then connect the points to see the line that is formed. Write two other ordered pairs that will be on the line.

Answers are on page 21.



Answer the following questions about the line that is graphed on the coordinate plane grid below. Answers are on page 21.



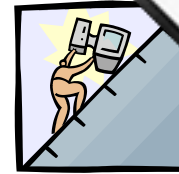
Use this space to record four ordered pairs that the line passes through on the coordinate plane grid to the left:

- What number is missing from this ordered pair that would be on the line graphed above -- (_____, 0)?
- Which ordered pair does the line NOT pass through?
 - (0, 4)
 - (4, 8)
 - (-6, 2)
 - (-8, -4)
 - (-10, -6)
- Complete the chart below to show the ordered pairs for four points on the line graphed above.

X	Y

- Write the equation that satisfies the solution set that is on the chart above.

- Is it the only equation that will graph the same line? Explain your answer.



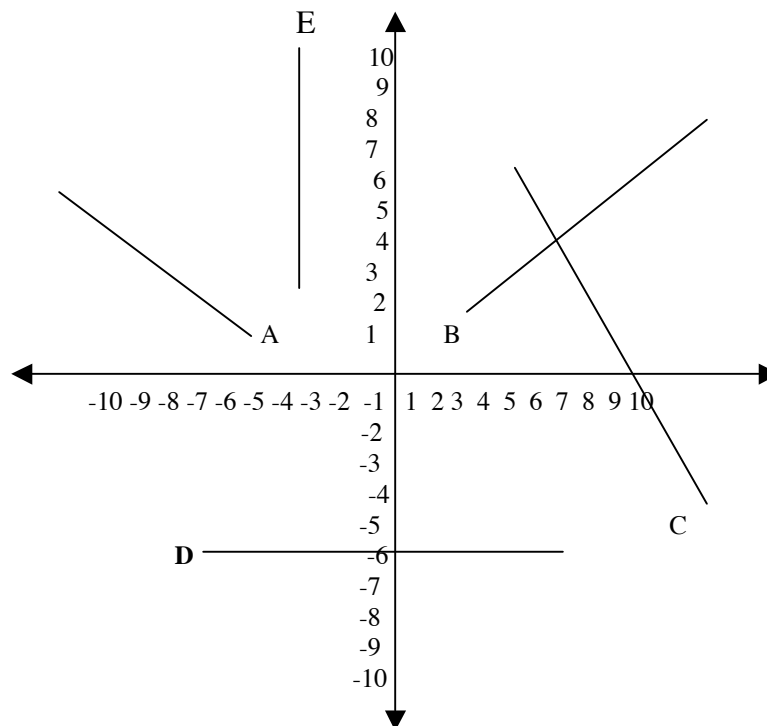
Slope of a Line

The **slope of a line** is the measure of its steepness or incline. On the GED Math Test, you may be asked to identify what kind of slope a line has or to use the slope formula which is found on the GED Math Test formula page to find the numerical value of the slope of a given line.

Generalizations

Engineers, architects, and designers use the slope of a line when creating designs for roadways, buildings, and hiking and biking trails. There are four generalizations about slope that will help you to understand the concept of incline or decline:

1. If a line **ris**es from left to right, the slope is **positive**. Think of a car trying to climb a hill. It needs positive energy (gasoline) to climb the hill and not roll back down.
2. If a line **falls** from left to right, the slope is **negative**. The car can coast down the hill, and the energy needed is negative.
3. If the line is **straight horizontally** (parallel to the x-axis), the slope is **zero**. The car will just sit still and not roll in either direction.
4. If the line is **straight vertically** (parallel to the y-axis), the slope is **undefined**.



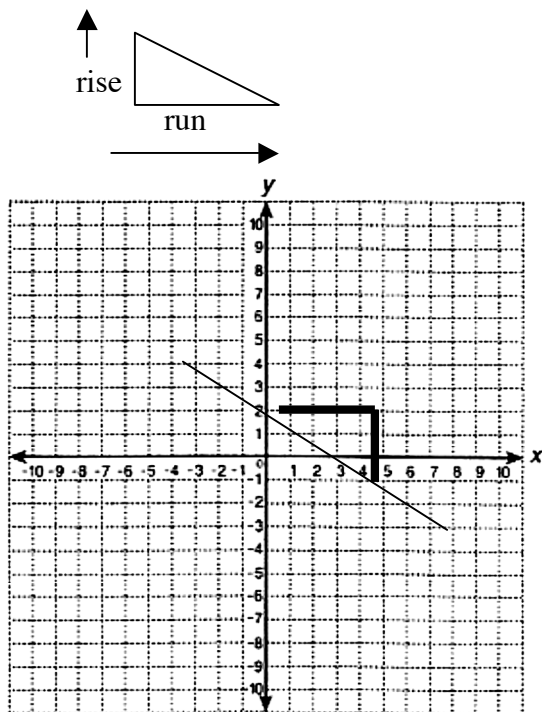
Label the slopes of the lines above positive, negative, zero, or undefined.

Answers are on page 21

A _____ B _____ C _____ D _____ E _____

Value of the Slope of a Line

The value of the slope of a line is a ratio of the rise (change up or down) to the run (change right or left). The rise is the point at which the line crosses the y-axis and is called the y-intercept. The run is the point at which the line crosses the x-axis and is called the x-intercept.



Look at the line on the graph below.

The rise of the line is 2. That is the y-intercept. The run of the line is 3, the x-intercept.

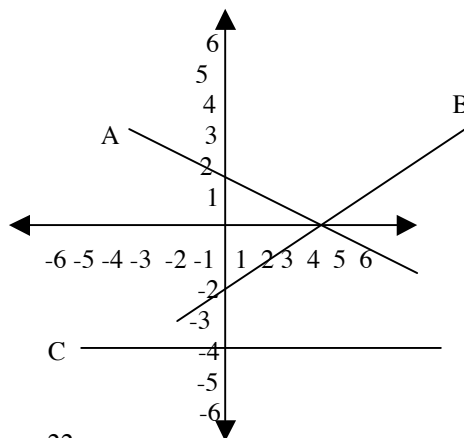
$$\frac{\text{rise}}{\text{run}} = \frac{2}{3}$$

Because the line is going down from left to right, the slope is negative. The slope of this line is $-\frac{2}{3}$.

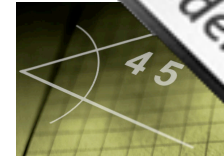
On the coordinate grid below are several lines. In each case, you can see the x- and y-intercepts by reading the graph. Follow these steps to find the slope of the line:

1. Locate the rise of the line where it crosses the y-axis. This is the y-intercept.
2. Locate the run of the line where it crosses the x-axis. This is the x-intercept.
3. Place the rise over the run.
4. Look at the line and determine if the slope is positive or negative or zero.

A _____
B _____
C _____



Answers are on page 22.



Slope of the Line Formula

It is possible to find the slope of a line when you know any two points on the line. The formula to find the slope of a line is found on the GED Formula Page. You can use the formula page when you are taking both sections of the GED Math Test. The formula to find the slope of a line is:

$$\text{slope of a line} = \frac{y_1 - y_2}{x_1 - x_2} \quad (x_1, y_1) \text{ and } (x_2, y_2) \text{ are two points on the line}$$

Find the slope of a line with points $(-1, 2)$ and $(1, -4)$.

$$\text{slope} = \frac{y_1 - y_2}{x_1 - x_2}$$

$$\text{slope} = \frac{2 - (-4)}{-1 - (1)}$$

$$\text{slope} = \frac{6}{-2}$$

$$\text{slope} = -3$$

Choose either of the ordered pairs for y_1 . It does not matter which one, the answer will be the same.

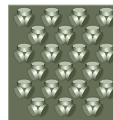
Remember the rules for subtracting signed numbers.

Remember the rules for dividing signed numbers.

Use the slope of the line formula to compute the slopes of the lines with the points given below. Answers are on page 22.

- $(4, 5)$ and $(3, -4)$ $(2, 1)$ and $(4, 2)$ $(-6, -2)$ and $(3, 4)$ $(1, 3)$ and $(5, 3)$
 $(3, 1)$ and $(1, 7)$ $(-4, -3)$ and $(1, -3)$ $(-1, -1)$ and $(5, 4)$ $(6, 1)$ and $(-4, 6)$

More About Patterns



Record the missing parts of the patterns below.

Answers are on page 22.

AA, AB, AC, AD, _____, _____, _____, _____, _____ ... _____, _____, _____

_____, 2, _____, _____, _____, 10, 12, 14, _____, _____, _____, _____, _____, ...

!!!, @@@@, #####, \$\$\$\$, _____, _____, _____, _____, _____, _____ ...

Ann, Beth, Cindy, Dorian, Francis, Gertrude, _____, _____, _____ ...

Measure Up



Olsen's Men's Wear got new boxes for shirts. The boxes were red and had the company logo printed on the cover. Each box was 15 inches long, 11 inches wide, and $3\frac{1}{2}$ inches high. The salesman who unpacked the boxes took some measurements and made some calculations. What did he find out?

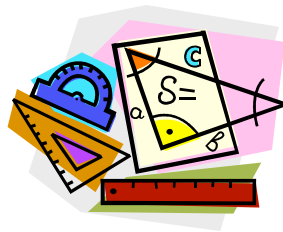
Answers are on page 22.

perimeter of the box _____ area of the cover _____

volume of the box _____ area of a long side _____

area of a short side _____ surface area of the box _____

During the holidays, Olsen's offers complimentary gift wrapping. The salesman was planning to cut some pieces of wrapping paper ahead of time to use during busy times. He planned to cut the paper in rectangles $30'' \times 18''$. Will a sheet of paper this size be sufficient to wrap the box? Why or why not?



About Math and Life

Peyton had to complete an assignment in his college algebra class. The teacher provided an answer sheet and this set of directions.

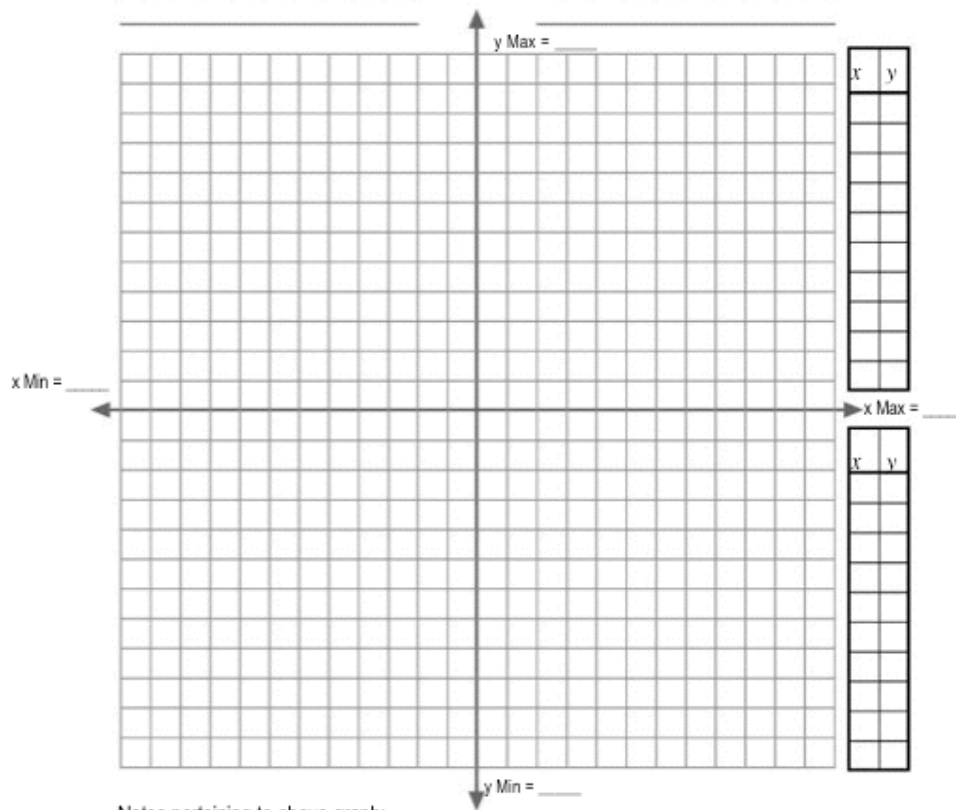
Assignment J6

1. record five ordered pairs that satisfy the equation $x=y$
2. record five ordered pairs that satisfy the equation $2x - 1 = y$
3. plot the ordered pairs on the coordinate grid
4. connect the points for each equation
5. write some observations comparing the graphs for the two equations

Complete the assignment to find out what Peyton's finished worksheet was like. Use the worksheet on page 13 to do your work.

Date: _____

Reference Number:



Notes pertaining to above graph:

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Comprehensive Review

$35 + 568 =$ $6,078 \div 4$ $45 \times 89 =$ $1/3 + 2/5 =$ $5,000 - 462 =$

$\$2.96 + .45 + .50 =$ $345.2 \div 7.4$ $2 \frac{1}{5} \times 6 =$ $10\% \text{ of } 150 =$

$7^2 =$ $\sqrt{144}$ $155 \text{ is } 5\% \text{ of } \underline{\hspace{2cm}}$ $1 \frac{1}{4} + 2 \frac{7}{8} =$

Jack and Jackie Smith are twins who were born just four minutes apart in April of 1986. Jackie is older than Jack. If the twins graduated from high school when they were 17, what year did they graduate? _____



Peter and Marian were newly married in 1987. They had a very tight budget to make ends meet. Their rent was \$285 per month, the utilities were \$49.50 per month, and they spent \$50.00 a week for food. What were their expenses for two months? _____

Alli was excited to find a skirt on sale. It had been marked down 20% from its original price of \$80.00. A sign above the rack read, "Take an additional 25% off at the register." How much was the skirt with the double discount? _____

$5/6 = ?/12$ $3 : 4 \text{ as } \underline{\hspace{1cm}} : 12$ $\frac{5}{6} = \frac{60}{?}$ Seven is to 35 as _____ is to 45.

Mr. Tibbs' fourth grade class has 26 students. Three less than half of the students are girls. What numbers represent the following ratios?

girls to class members _____
 boys to class members _____
 boys to girls _____

students to teacher _____
 teacher to girls _____
 girls to boys _____



Samuel stood next to a crape myrtle tree. At noon, Sam's shadow was 10 feet long, and the tree's shadow was 25 feet long. If Sam is six feet tall, how tall is the tree? _____

Change each of the following measurements to pints:

1 quart _____ 2 gallons _____ 3 cups _____ 64 tablespoons _____

The GED Formula Page is part of the GED Math Test and also part of all of the practice materials. Refer to the formula page if you need to during practice and during the test. Write the formulas for the following:

perimeter of a rectangle _____
 area of a rectangle _____
 area of a circle _____
 Pythagorean relationship _____

volume of a cylinder _____
 volume of a rectangular solid _____
 circumference of a circle _____
 area of a triangle _____



Use the formulas to solve the following problems:

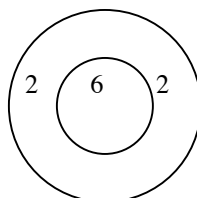
Find the perimeter of a rectangle that is 6 feet long and 4 feet wide. _____

Find the area of a triangle with a base of 3 inches and a height of 4 inches. _____

Find the circumference of a circle that has a radius of 4 yards. _____

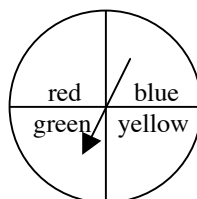
Find the missing side of a right triangle that has a hypotenuse of 10 centimeters and a side of 6 centimeters. _____

Find the volume of a box that measures 10 inches wide, 12 inches long, and three inches high. _____



The Simpson family decided to build a circular garden in the center of the back yard. The planting area would be inside a circular area of lawn. If the diameter of the garden was six feet, and the diameter of the whole circle was ten feet, what was the area of the lawn?

Max has a spinner that is divided into four equal parts labeled red, blue, green, and yellow. If he flips a coin and spins the spinner, what is the probability that he will flip a heads *and* land on blue *or* green?



If $x = 2$, $y = 3$, and $z = 5$, evaluate the following expressions.

$$x + y + z = \underline{\hspace{2cm}} \quad xyz = \underline{\hspace{2cm}} \quad x^2 - y = \underline{\hspace{2cm}} \quad 2x + 3y = \underline{\hspace{2cm}}$$

$$xy - z = \underline{\hspace{2cm}} \quad x + yz = \underline{\hspace{2cm}} \quad (x + z) - 4y = \underline{\hspace{2cm}} \quad xyz^2 - 100 = \underline{\hspace{2cm}}$$

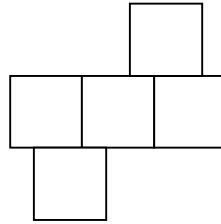
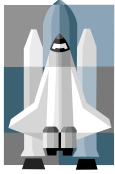
Solve for the unknown quantity.

$$\begin{array}{cccc} a + 6 = 18 & 3k = 24 & 150 - d = 97 & y/15 = 8 \\ \underline{\hspace{2cm}} & \underline{\hspace{2cm}} & \underline{\hspace{2cm}} & \underline{\hspace{2cm}} \end{array}$$

$$\begin{array}{cccc} 5x - 5 = 30 & 2q - 8 = 22 & x + 2x = 150 & 3y + y - 5 + 12 = 31 \\ \underline{\hspace{2cm}} & \underline{\hspace{2cm}} & \underline{\hspace{2cm}} & \underline{\hspace{2cm}} \end{array}$$

Answers are on pages 22 and 23.

Out into Space



Look at the figure above. Each of the five squares that make up the figure has a side with a length of 3. Answers are on page 23.

1. What is the area of one of the squares? _____
2. What is the area of the whole figure? _____
3. What is the perimeter of the figure?
 - a) 12
 - b) 21
 - c) 30
 - d) 36
 - e) 39

4. Write an explanation of how you chose the answer for the length of the perimeter of the figure. Use drawings if necessary.

Formula Review

Match the formulas to the problems. Remember you can always refer to the GED Formula Page on the GED Math Test. Answers are on page 23.

- | | |
|-----------------------------|--|
| a. area of a circle | _____ $a^2 + b^2 = c^2$ |
| b. area of a triangle | _____ $I = PRT$ |
| c. Pythagorean Relationship | _____ $V = \pi r^2 h$ |
| d. perimeter of a rectangle | _____ $A = \pi r^2$ |
| e. simple interest | _____ $A = 1/2bh$ |
| f. slope of a line | _____ $P = 2L + 2W$ |
| g. volume of a cylinder | _____ $\text{slope} = y^1 - y^2/x^1 - x^2$ |

STRATEGY SESSION



Strategies Review

The most important strategy for passing the GED Math Test is to be knowledgeable about the content. It is important to master the types of questions you will find on the test, and to be confident that you can use problem-solving skills to know what to do to find the correct answer.

It is also important to practice using the official calculator, the Casio fx-260 so that you know how to solve problems using the calculator if you choose to use it. Become familiar with the official calculator by using it to prepare for the test. The short segment of instruction given at the testing site is often not enough practice to give the student a real comfort with the instrument.

There are also many times when knowing helpful strategies will get you through the questions that are difficult for you or about which you are unsure. The following strategies have been introduced in *Video Partners* math workbooks:

- Estimate
- Watch for Extraneous Information and Numbers
- Make a Chart or a Table
- Use the Scratch Paper as a Tool
- Make a Drawing or Model
- Work Backwards
- Look for Key Words and Eliminate Possibilities
- Read Carefully and Critically
- Analyze Method for Solution
- The Three R's - Readiness, Rest, and Relaxation



It is very important to practice techniques to help you stay calm and focused while you are studying and while you are taking the test.

Readiness**Rest****Relaxation**

You will be **ready** to take the test when you have reviewed and practiced all of the material that is covered by the GED Math Test. You should take an Official GED Practice Test to make sure that your score will be high enough to pass. You can take an Official Practice Test at the local adult education program and at some community-based GED instructional programs. The person administering the Official Practice Test can advise you if your score is adequate to consider taking the GED Math Test at the test center. The same person may be able to analyze the Official Practice Test and let you know any weaknesses that you may have. Then you can study these areas again.

You should get plenty of **rest** the night before you take the GED Math Test. It is important not to be tired when you take a test. To insure that you will sleep well, you may want to avoid caffeine,

refined sugar, and alcohol before the test. All of these items can cause sleep disturbances. Also, plan to go to bed at a reasonable time the night before the test. Studies show that students who stop studying several hours before bed the night before a test perform better than those who cram into late hours.

Try to **relax** and stay calm the day of the test. You will do your best thinking when you are relaxed. If you come to a question that you feel you cannot answer, try some deep breathing and read it again carefully. Then decide to make an educated guess or to skip it and come back to it later. If you decide to skip it, be sure to leave a space on the answer sheet and write a note on your scratch paper that you want to re-visit it later.

When you feel ready, make an appointment to take the GED Math Test. If your test center does not make appointments, be sure you know when you must be there to register on the day of the test.

Use this checklist to be sure that you are ready for the GED Math Test:

- ☐ Practice all of the content on the test.
- ☐ Practice with the Casio fx-260 calculator and be comfortable using it.
- ☐ Make an appointment for the test if necessary.
- ☐ Stop studying and go to bed early the night before the test.
- ☐ Avoid caffeine the day of the test.
- ☐ Pack a nutritious snack and water.
- ☐ Take two, sharpened #2 pencils and an erasable pen to write the essay.
- ☐ Take a watch or plan to sit where you can see the clock.
- ☐ Stay calm during the test, and practice deep breathing if you become anxious.
- ☐ Work systematically through the test using the skills and strategies you know.
- ☐ Check your answer sheet to make sure the bubbles are clear and dark.



Good luck!!

Readiness

Rest

Relaxation

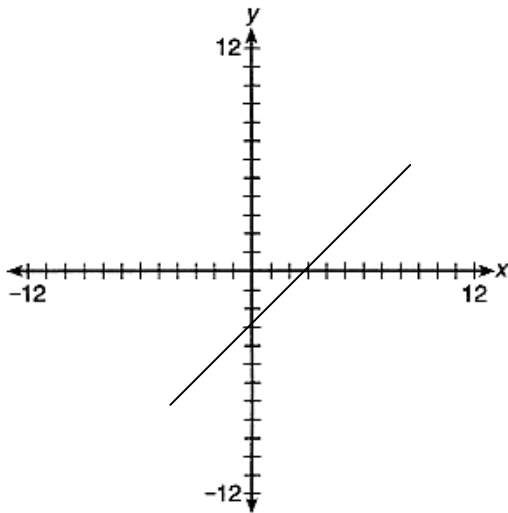


GED Exercise

1. Which of the following will complete the pattern?
1, 4, 7, 10, _____, _____, _____, ...

- 1) 13, 16, 19, ...
- 2) 12, 14, 16, ...
- 3) 14, 18, 22, ...
- 4) 13, 15, 18 ...
- 5) 7, 3, -1, ...

2. The slope of the line below is:



- 1) positive
 - 2) negative
 - 3) zero
 - 4) undefined
 - 5) not enough information given
3. Two points on a line are (6, 13) and (2, 5). What is the slope of the line?

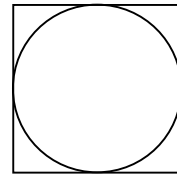
- 1) -2
- 2) -1/2
- 3) 1/2
- 4) 2
- 5) 3

4. Samantha bought four pounds of coffee for \$4.49 each. The next day it went on sale for 15% off. How much would she have saved if she had waited a day to buy?

- 1) \$1.88
- 2) \$18.76
- 3) \$4.69
- 4) \$2.69
- 5) \$3.69



5. The circle below is inside a square and touches all four of the sides. Which formula will give the area of the square if the diameter of the circle is 6?



- 1) $A = \pi 3^2$
- 2) $A = 6^2$
- 3) $A = 1/2 (6) (6)$
- 4) $P = 2(6) + 2(6)$
- 5) not enough information given

Answers and Explanations

Words You Need to Know

page 2

1. c.
2. d.
3. a.
4. e.
5. b.

Changing Fractions to Repeating Decimals

page 4

$$\frac{2}{3} = .6\ldots \quad \frac{5}{9} = .5\ldots \quad \frac{5}{6} = .8\overline{3} \quad \frac{7}{12} = .58\overline{3} \quad \frac{1}{11} = .0\overline{9} \quad \frac{3}{7} = .428571\overline{}$$

Linear Patterns

page 4

11, 13, 15, 17, 19, ...
 ... -9, -7, -5, -3, -1
 abbf, abbg, abbh, abbi, abbj, ...
 ∇ , Σ , ∇ , Σ , ∇ , Σ , ...
 Answers will vary.

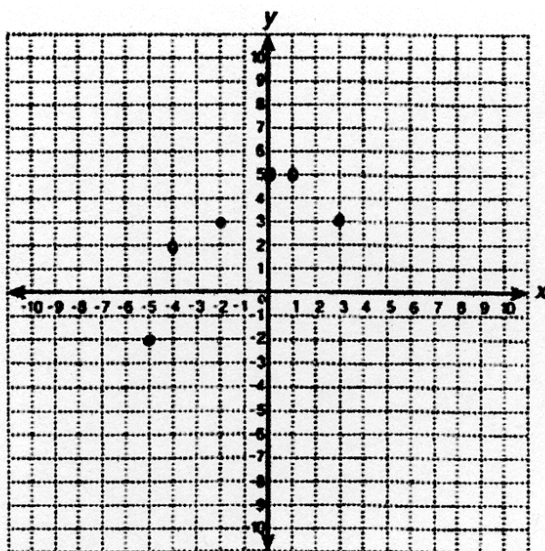
More Difficult Patterns

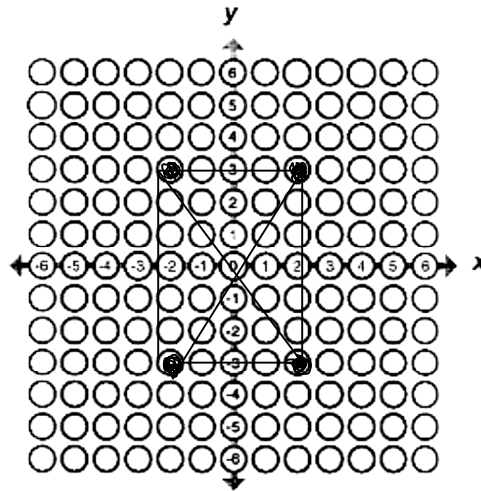
page 4

35, 42, 49, 56, 63, ...
 21, 34, 55, 89, 144, ...
 XXXXXXOOOOOOOOOOOOOOOOO, ...
 95, 191, 383, 767, 1535, ...
 The previous number is doubled and then increased by 1.

Ordered Pairs

page 6





2) triangles and rectangle

Graphing Equations

page 7

X	Y
0	2
1	3
2	4
3	5
5	7
6	8
8	10

(0, 2) (1, 3) (2, 4)
(3, 5) (5, 7) (6, 8)
(8, 10)

Answers will vary. Possible answers include (4, 6) and (-1, 1)

Coordinate Plane

page 8

1. (-4, 0)
2. 3) (-6, 2)
- 3.

X	Y
-4	0
4	8
-8	-4
-10	-6

4. $x + 4 = y$
5. Yes; since one variable depends on the other, there is only one equation that will graph the same line.

Slope of a Line

page 9

- A. negative B. positive C. negative D. zero E. undefined

Value of the Slope of a Line page 10

- A. $-1/2$
- B. $1/2$
- C. 0

Slope of the Line Formula page 11

9	$1/2$	$2/3$	0
-3	0	$5/6$	$-1/2$

More About Patterns page 11

AE, AF, AG, AH, AI ... AX, AY, AZ

1, 4, 6, 8, 16, 18, 20, 22, 24, ...

Answers will vary. Any four matching symbols that are new to the pattern. For example, ^^^^, &&&&, ***, (((,))), ...

Answers will vary. The next item should be a girl's name beginning with H and having 9 letters, etc. For example, Henrietta, Isabel Anne, ...

Measure Up page 12

52 inches	165 square inches
577.5 cubic inches	52.5 square inches
38.5 square inches	512 square inches

No, the paper is long enough to go around the 29-inch circumference; however, with only three extra inches on the width ($1 \frac{1}{2}$ inches/end), the paper will not completely cover the ends.

About Math and Life page 13

Your teacher or tutor will correct the worksheet. Answers will vary based on the ordered pairs that you choose for each equation. A sample answer can be found on page 24.

Comprehensive Review pages 14 and 15

603	1519.5	4005	$11/15$	4,538
\$3.91	46.648	$13 \frac{1}{5}$	15	
49	12	3,100	$4 \frac{1}{8}$	

2003

\$1069.00

\$48.00

Remember double discount must be computed one discount at a time.

10	9	72	9
----	---	----	---

10:26

26:1

16:26

1:10

16:10

10:16

15 feet

2	16	1.5	4
---	----	-----	---

Perimeter = 2 x length x width
 Area = length x width
 Area = $\pi \times \text{radius}^2$
 $a^2 + b^2 = c^2$

Volume = $\pi \times \text{radius}^2 \times \text{height}$
 Volume = length x width x height
 Circumference = $\pi \times \text{diameter}$
 Area = $1/2 \times \text{base} \times \text{height}$

20 feet
 6 square inches
 25.12 square yards
 8 centimeters
 360 cubic inches
 6.28 square feet
 1/4 or 1 out of 4

10	30	1	13
1	17	-5	50
a = 12	k = 8	d = 53	y = 120
x = 7	q = 15	x = 50	y = 6

Out into Space page 16

1. 9 square units
2. 45 square units
3. d) 36
4. 3 whole ends = $10 \times 3 = 30$ The two partial sides on the top and the bottom combine to make 3 in each case, adding two more threes to the total. $30 + 6 = 36$

Formula Review page 16

- c.
- e.
- g.
- a.
- b.
- d.
- f.

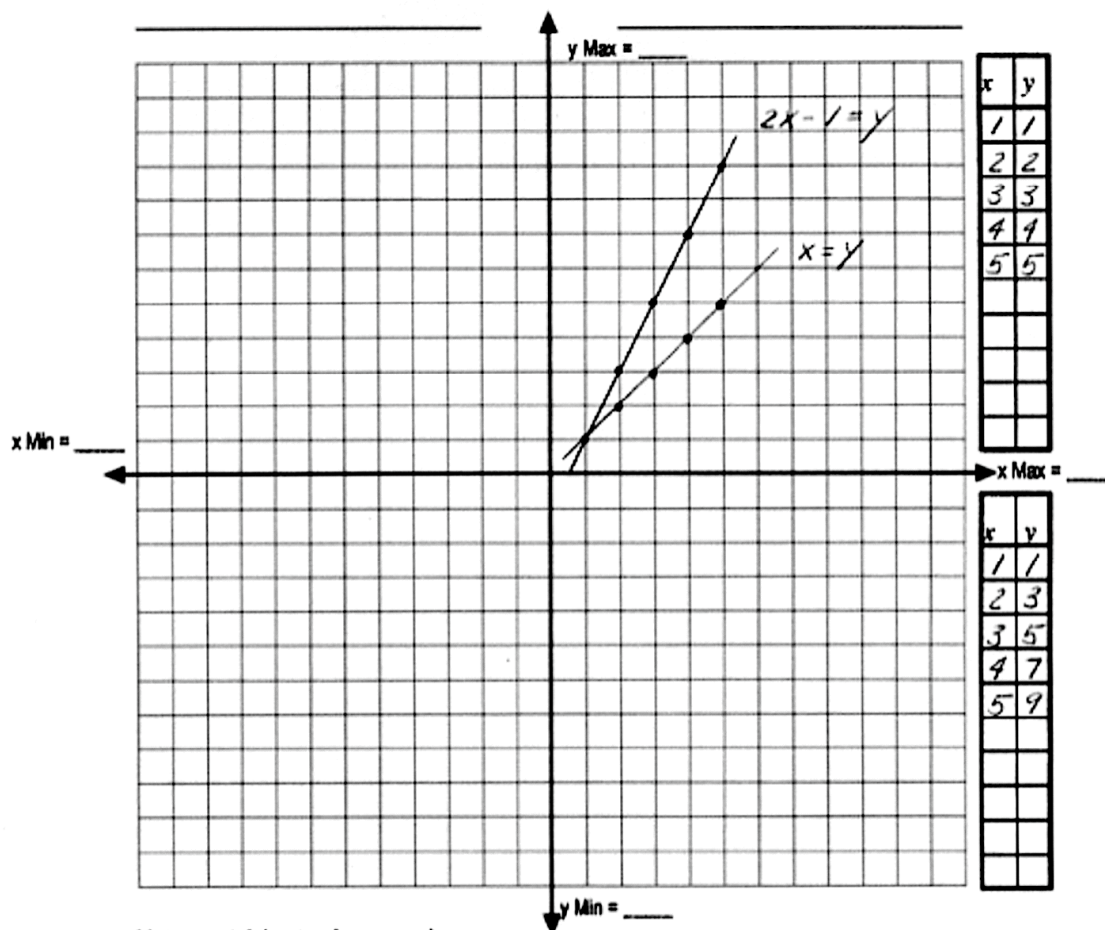
GED Exercise page 19

1. 1)
2. 1)
3. 4)
4. 4)
5. 2)

Date: _____

Reference Number: _____

16



Notes pertaining to above graph:

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Sample Notes:

The graph for both equations form a straight line with a positive slope. The slope of the line formed by the equation $2x - 1 = y$ is 2. The slope of the line for the equation $x = y$ is 1.