## Rising $7^{\text {th }}$ Grade Summer Assignment

## Concept 1 - Negative Numbers/Absolute Value (6.NS.5, 6a, 7abcd)

## Negative Numbers

On a number line, numbers get $\qquad$ to the right and $\qquad$ to the left.

Any number to the left of 0 is called a $\qquad$ .

ALL negative numbers are $\qquad$ ALL positive numbers.

The $\qquad$ of a number is its distance from 0 . It is written: $\mid$.

You Try: $|7|=$ $\qquad$ $|-4|=$ $\qquad$ $|4|=$ $\qquad$
Which two of the answers above have the same absolute value? Why? $\qquad$

Inequality Signs Review


You Try: Fill in the correct inequality symbol. Use the number line if it helps.
a) 0.25 $\qquad$ 2.5
b) -3 $\qquad$ 1
c) $-3 \frac{1}{2}$ $\qquad$ $-81 / 4$
d) -5 $\qquad$ $-4$


Real-World Situations: Numbers can be negative in real-world situations also. Write a positive or negative number to represent the following situations:
a) The temperature is $40^{\circ}$ in Virginia. $\qquad$ b) The temperature is $17^{0}$ below zero in Alaska.
c) You sell a CD and earn $\$ 8$. $\qquad$ c) You owe your friend $\$ 17$. $\qquad$
$\qquad$

Challenge: It is $30^{0}$ below zero at the South Pole and $23^{0}$ below zero at the North Pole. How much colder is it at the South Pole?

## Higher-Level Questions for Discourse

1. Can fractions and decimals also be negative? Why or why not?
2. Why is a negative number with a larger number after the negative sign actually a smaller value?

## Concept 1 Released EOG Questions (6.NS.5, 6a, 7abcd)

21 Jeff recorded the average temperatures for six months. He will display the temperatures on a number line.

| Month | Temperature ( ${ }^{\circ} \mathrm{F}$ ) |
| :---: | :---: |
| December | -5 |
| January | ${ }^{-} 16$ |
| February | -15 |
| March | 20 |
| April | 24 |
| May | 35 |

On the number line, which month's temperature will be between February's and March's temperatures?

A December
B January
C April
D May

37 Which point on the number line represents the number $-4 \frac{1}{2}$ ?


A $P$
B $Q$
C $R$
D $S$

This table shows the number of miles four friends travel to get to school.

| Student | Distance to School (miles) |
| :---: | :---: |
| Andie | $1 \frac{3}{8}$ |
| Helen | $1 \frac{2}{3}$ |
| Michelle | $1 \frac{5}{9}$ |
| Troy | $1 \frac{4}{9}$ |

Who travels the greatest distance to school?
A Andie
B Helen
C Michelle
D Troy

## Concept 2: Dividing Fractions, Decimal Operations, Factors, and Multiples (6.NS.1, 2, 3, 4)

## Dividing Fractions

The Visual: Create a visual model to solve: Susan has $\frac{2}{3}$ of an hour left to make cards. It takes her about $\frac{1}{6}$ of an hour to make each card. About how many can she make? $\qquad$ cards

Use the visual below to divide $\frac{2}{3}$ by $\frac{1}{6}$ (figure out how many $\frac{1}{6}$ pieces are in $\frac{2}{3}$ ).


The Math: To divide two fractions, multiply the first fraction times the $\qquad$ of the second. Example: $\frac{4}{7} \div \frac{2}{5}=\frac{4}{7} \bullet \frac{5}{2}=\frac{20}{14}=1 \frac{6}{14}=1 \frac{3}{7}$
You Try: a) Divide $\frac{2}{3} \div \frac{1}{2}$
b) Divide $6 \div \frac{2}{3}$
c) Divide $\frac{5}{6} \div 4$

When interpreting word problems to divide fractions, the same key words apply as for whole numbers. are all key words for division.
Additionally, problems involving area can sometimes be solved using division.

## Decimal Operations

To add or subtract decimals, $\qquad$ and use the regular steps.

To multiply decimals, $\qquad$ to the right of the decimal in each number.

Then, use the regular steps to multiply. Then, count back from the right and put the decimal back in!
To divide decimals, $\qquad$ to the right in the divisor and dividend to get a whole number divisor. Then, use the regular steps to divide and move the decimal straight up in the division.

Find the quotient.


You Try: a) $12.5+13$
b) 10-3.8
c) $0.5 \cdot 0.5$
d) $16.9 \div 0.13$

## Factors and Multiples

Factors $\qquad$ to equal a number. Multiples are produced when a number is multiplied.

Example: Factors of 24 are 1, 24, 2, 12, 3, 8, 4, and 6 . Multiples of 24 are 24, 48, 72, 96, etc.
To find the greatest common factor (GCF) of 2 number:

1. Find the $\qquad$ of each number (what prime numbers multiply to equal the number)
2. Multiply all the $\qquad$ prime factors

Greatest Common Factor

1) Prime Factors

To find the least common multiple (LCM) of 2 numbers:


Multiples of 3
$3,6,9,12,15,18,21,24,27,30, \ldots$
2) Shared:

Multiples of 5
3) Multiply
$5,10,15,20,25,30,35,40,45,50, \ldots$ Least Common Multiple (LCM) = 15

## Higher-Level Questions:

1. What is one way to find a common multiple for two numbers, even if it isn't the LCM? Why does this work?
2. Why do we line up the decimals to add or subtract decimals but not to multiply or divide?

## Concept 2 Released EOG Questions (6.NS.1, 2, 3, 4)

2 A rectangular parking lot has an area of $\frac{2}{3}$ of a square kilometer. The width is $\frac{1}{2}$ of a kilometer. What is the length, in kilometers, of the parking lot?

A $\frac{1}{3}$

B $\frac{2}{3}$

C $\quad 1 \frac{1}{3}$
D $\quad 1 \frac{2}{3}$

3 The price of a theater ticket increased from $\$ 7.50$ to $\$ 7.75$. The theater sold 315 tickets at the higher price. With the price increase, how much more did the theater earn on the tickets?

A $\quad \$ 78.00$
B $\$ 78.25$
C $\quad \$ 78.50$
D $\quad \$ 78.75$
8 A rectangular room has an area of $131 \frac{1}{4}$ square feet. The length of the room is $12 \frac{1}{2}$ feet. What is the width, in feet, of the room?

9 Allen is building birdhouses that require $\frac{1}{2}$-ft-long boards. How many pieces that are exactly $\frac{1}{2} \mathrm{ft}$ long can be made from a board that is $8 \frac{1}{4} \mathrm{ft}$ long?

10
How much money should John get back when he uses $\$ 10.00$ to pay for purchases totaling $\$ 5.25$ ?

Express the answer as dollars.cents.

11 What is the product of 2.52 and 3.4 ?

13 What is the greatest whole number that is less than $\left(\frac{5}{2}\right)^{3} \div\left(\frac{3}{4}\right)^{2}$ ?

Marcy is taking two types of medicine.

- She takes one medicine every 6 hours.
- She takes the other medicine every 4 hours.
- She takes both medicines at 9:00 a.m.

At what time will Marcy take both medicines together again?
A $\quad 1: 00$ p.m.
B $\quad 3: 00$ p.m.
C $\quad$ 5:00 p.m.
D 9:00 p.m.

Concept 3: Rates and Ratios (6-RP.1, 2, 3)
Ratio - $\qquad$
A ratio can be expressed as $\qquad$ to $\qquad$ OR $\qquad$ to $\qquad$ .

The notation can either use a colon (:) or a fraction bar.
Unit Rate - $\qquad$
Unit rates can be $\qquad$ times a given number of items to find a total value

Common real-world unit rates include $\qquad$
Percents - Rates expressed as parts out of $\qquad$
Percents can be used to find a unit rate based on $\qquad$ items (dividing by $\qquad$ _)

## Representations of Rates and Ratios

Unit rates and ratios can be represented as written descriptions, tables, equations, and graphs.
You Try: Snicker bars at your favorite store are on sale at $2 / \$ 1.50$.
A) What is the unit rate for a Snicker bar? $\qquad$ How did you figure it out?
B) Create a table representing the cost of up to 10 Snicker bars.

| Snickers |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Cost |  |  |  |  |  |  |  |  |  |  |

C) Graph these points. What do you notice about the graph?
D) How much would 25 Snicker bars cost? $\qquad$
How did you figure that out?

## Higher-Level Questions for Discourse



1. Why is a percent a type of rate if it only has one number? How can we write it as a ratio?
2. Are the ratios $4: 3$ and $3: 4$ the same? Why or why not?

## Concept 3 Released EOG Questions (6-RP.1, 2, 3)

1 Joe will go to the swimming pool on 20 different days this month.

- A one-day pass to the pool is $\$ 2.25$.
- A monthly pass to the pool is $\$ 30.00$.

How much money will Joe save by buying a monthly pass?
A $\$ 20$
B $\$ 18$
C $\$ 15$
D $\$ 12$
7 A recipe requires $\frac{1}{4} \mathrm{lb}$ of onions to make 3 servings of soup. Mark has $1 \frac{1}{2} \mathrm{lb}$ of onions. How many servings can Mark make?

12 At a store, Susan selected a pumpkin that weighed 35.2 ounces.

- Pumpkins cost $\$ 1.80$ per pound.
- There are 16 ounces in 1 pound.

How much did Susan's pumpkin cost?
Express the answer as dollars.cents.

15 Heather earns $\$ 8.00$ per hour for walking a dog. How many hours must she work to earn $\$ 256.00$ ?

16 One serving of Mike's crackers has 150 calories and a mass of 30 grams. How many calories are in 6 grams of the crackers?

A 5
B 10
C 25
D 30
17 The ratio of nitrogen to potassium in a sample of soil is 12:9. The sample has 36 units of nitrogen. How much potassium does the sample have?

A 21 units
B 27 units
C 33 units
D 48 units

18 To clean a tank, $\frac{3}{4}$ cup of disinfectant is needed for every 2 gallons of water. How many cups of disinfectant are needed for 20 gallons of water?

A $7 \frac{1}{2}$
B 15
C $22 \frac{1}{2}$
D 30
19 A laundry detergent is sold at four stores.

| Store | Size (ounces) | Price |
| :---: | :---: | :---: |
| Hawkin's Store | 60 | $\$ 6.50$ |
| Don's Store | 54 | $\$ 5.50$ |
| Allen's Market | 48 | $\$ 5.61$ |
| Value Market | 40 | $\$ 4.50$ |

Which store has the lowest price per ounce?
A Hawkin's Store
B Don's Store
C Allen's Market
D Value Market
34 A company that makes boxes finds that 3 out of 20 boxes are damaged. What percent of the boxes are damaged?

A $12 \%$
B $15 \%$
C $25 \%$
D $34 \%$
Jack drew a number line on his paper.


Jack drew a new point $45 \%$ of the distance from point $E$ to point $J$. Between which two letters does the new point lie?

A $\quad G$ and $H$
B $I$ and $J$
C $F$ and $G$
D $H$ and $I$
Valerie is 64 inches tall. About how many centimeters tall is Valerie? (1 inch $\approx 2.5$ centimeters)

A 25.6
B $\quad 30.6$
C 160
D 180

Concept 4: Relationships in the Coordinate Plane (6.NS.6bc, 8, 6.G.3)

## Quadrants and Signs

Write the SIGN (positive or negative) that applies to the numbers on each side of the number line.


On a coordinate plane, the points have TWO coordinates, an X (horizontal, or $\qquad$ ) and Y (vertical, or $\qquad$ _).

Based on the number lines above, label the signs of each point
 in each quadrant of the coordinate plane.

How did you determine how to
label the signs?


On the number line to the right, what is the distance between points -3 and $21 / 2$ ? $\qquad$
How did you figure that out?


On the coordinate plane to the right, graph:
Point A - $(-3,4) \quad$ Point B-(2 $1 / 2,4)$
Point C - $(2,-3) \quad$ Point D - $(2,21 / 2)$
What is the distance between $A$ and $B$ ?

What is the distance between C and D ?
What similarities do you notice between the coordinate plane and number line?


Concept 4 Sample EOG Problems (6.NS.6bc, 8, 6.G.3)
22 A trapezoid in a coordinate plane has vertices $(-2,5),(-3,-2),(2,-2)$, and $(1,5)$. What is the height of the trapezoid?

A 3 units
B 5 units
C 7 units
D 9 units

The shaded area indicates the parking lot at a shopping center.


What is the total area of the parking lot?
A $\quad 72$ units $^{2}$
B $\quad 86$ units $^{2}$
C 91 units $^{2}$
D 120 units $^{2}$

47 In the graph below, each grid square represents one square yard.


What is the area of the shaded figure?
A $\quad 20 \mathrm{yd}^{2}$
B $\quad 30 \mathrm{yd}^{2}$
C $\quad 36 \mathrm{yd}^{2}$
D $40 \mathrm{yd}^{2}$

30 What is the area of the quadrilateral with vertices at $(-1,0),(2,0),(2,5)$, and $\left({ }^{-1}, 5\right)$ ?

A 15 square units
B 12 square units
C 10 square units
D 5 square units
39 In the coordinate plane, what is the distance between $(-3,5)$ and $(-3,-8)$ ?
A 3 units
B 6 units
C 8 units
D $\quad 13$ units

Vocabulary:
Sum - $\qquad$ Difference - $\qquad$
Quotient - $\qquad$ Product - $\qquad$
Factor - $\qquad$ Coefficient - $\qquad$
Term - $\qquad$
Variable - $\qquad$
Exponent - $\qquad$
Base - $\qquad$
When you evaluate expression for given numbers, the number $\qquad$ the variable.

Then, use the correct order of operations. (PEMDAS, but remember, $\qquad$ and $\qquad$ go together from left to right).

## You try

1. $b+5+d$, when $\mathrm{b}=2.7$ and $\mathrm{d}=5.12$
2. $\frac{n-3}{10}$, when $\mathrm{n}=4$
3. $3\left(2 x^{2}-5\right)$, when $x=4$
4. $(x+2)^{3}+10$, when $x=5$

Distributive Property: Use the order of operations to simplify:
A) $5(3+4)$
B) $5(3)+5(4)$
C) What do you notice?

The distributive property - when you multiply one term times several terms in $\qquad$
You distribute the $\mathbf{a}$ to the $\mathbf{b}$ and, then you distribute the $\mathbf{a}$ to the $\mathbf{c}$.

## You Try:

A) $4(x-6)=$ $\qquad$ B) $3(4 x+2 y)=$ $\qquad$

## Combining Like Terms

You make $\$ 12 / \mathrm{lawn}$ mowing lawns in your neighborhood, and your friend only makes $\$ 9 / \mathrm{lawn}$. If you both mow the same number of lawns, how much more do you make? (Use $x$ to represent the number of lawns.)

Your total money made $=\ldots x$ Your friend's total money made $=$ $\qquad$ $x$

How much more you made $=$ $\qquad$ - $\qquad$ $=$ $\qquad$
What do you notice about the expression in your answer?

Collect like terms
 the same variables AND same exponents, you add or subtract but leave the variables and exponents the same

## Higher-Level Questions for Discourse

1. How are adding, multiplying, and exponents related?
2. Are numbers like terms? Why or why not?

4 Hannah babysits to earn money.

- She charges $\$ 6.50$ to babysit for the first hour.
- She charges $\$ 5.75$ for each additional hour.
- Let $n$ equal the number of hours after the first hour. $5 \quad$ What is the value of $\left(\frac{1}{7}\right)^{3}$ ?

A $\frac{3}{7}$
Which expression represents how much Hannah charges?
A $12.25 n$
B $\quad 6.50+5.75 n$
C $\quad 6.50 n+5.75$
D $6.50 n+5.75 n$
B $\quad \frac{1}{7}$
C $\frac{3}{343}$
D $\frac{1}{343}$

14 What is the value of $\frac{1}{3} x^{2}+2$, when $x=3$ ?

23 Which can be represented by the expression $17-2 x$ ?
24 Which expression is equivalent to $5 y+2 y+6 x+2 y-x$ ?
A $\quad 17$ less than twice a number $x$
B the difference between 17 and twice a number $x$
C a number $x$ squared, subtracted from 17
A $5 x+6 y$
B $\quad 5 x+7 y$

D 17 less than a number $x$ squared
C $5 x+9 y$
D $7 x+7 y$

Which choice is equivalent to the expression $4(x+2 y)$ ?

A $4 x+8 y$
B $4 x+2 y$
C $x+8 y$
D $8 x y$

43 Jane wants to visit her sister.

- Her car travels $x$ miles per gallon of gas.
- She will travel 1,000 miles to her sister's house.
- Gas costs $\$ 3.50$ per gallon.

Which expression shows how much Jane will spend for gas on the trip to her sister's house?
A 1,000(3.50x)
B $\quad 3.50\left(\frac{1,000}{x}\right)$
C $\quad 3.50\left(\frac{x}{1,000}\right)$
D $1,000\left(\frac{1}{3.50 x}\right)$

42 The length of a rectangle is 6 units longer than the width, $w$. Which choice is a correct expression for the perimeter of the rectangle?

A $2 w+6$
B $\quad 2 w+12$
C $\quad 4 w+6$
D $\quad 4 w+12$

Concept 6: Equations and Inequalities (6.EE.5, 6, 7, 8)
The solution, or answer, to an equation is the number that replaces the variable to make the equation $\qquad$ .

You try: What number replaces the variable to make the equation true? (Use the visual if you need.)
A) $4+x=11$
B) $x-8=2$
C) $5 x=40$
D) $x \div 9=4$

| 11 |  |
| :---: | :---: |
| 4 | x |


| x |  |
| :---: | :---: |
| 2 | 8 |


| 40 |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| X | X | X | X | X |


| 9 | 9 | 9 | 9 |
| :--- | :--- | :--- | :--- |
| x |  |  |  |

What relationship do your answers have to the original numbers? $\qquad$

What type of operations can help us solve equations? $\qquad$
You Try: Use opposite operations to solve these equations (it's the same process, just with rational numbers!)
A) $7.5+x=14.3$
B) $x-5 \frac{1}{1} 2=3$
C) $4.2 x=16.8$

Equations can also be used to find missing values in word problems. The same key words can be used to set up the equations:

Addition - $\qquad$
Subtraction - $\qquad$
Multiplication - $\qquad$
Division - $\qquad$
You Try: Kiara has earned 15 extra credit points in English class for her outside reading, but she really wants to earn a total of 29 points. How many more points does she need? (Set up and solve the equation.)

## Inequalities

Sometimes, we are trying to determine what numbers will complete a true number statement to be $\qquad$ or $\qquad$ another number. The process for solving these is the same as equations, but you flip the inequality sign to the other direction when you $\qquad$ _.

We can graph these solutions on a $\qquad$ , because the answer is a range of values.



Look at the number lines above. What do you notice about the inequality signs and graphs?

Complete the following table with the characteristics of these graphs.

|  | Includes Equal To | Not Equal To |
| :---: | :---: | :---: |
| Greater Than |  |  |
| Less Than |  |  |

## Higher-Level Questions for Discourse

1. What does it mean to "solve" an equation or inequality?
2. Why does a linear equation have one solution but a linear inequality has many solutions?

25 Diana can use the equation $y=7 x$ to calculate her pay, where $y$ represents the amount of pay, and $x$ represents the number of hours worked. How many hours did Diana work if she was paid $\$ 45.50$ ?

A 5.5 hours
B 6 hours
C $\quad 6.5$ hours
D 7 hours

26 If $y-18=14$, what is the value of $3(y+5)$ ?
A 27
B 32
C 96
D 111

27 Karen recorded her walking pace in the table below. What equation best represents this relationship?

| Hours Walked $(h)$ | Miles Walked $(m)$ |
| :---: | :---: |
| 2.5 | 8.75 |
| 4 | 14 |

A $\quad h=m+10$
B $\quad h=3.5 m$
C $\quad m=h+10$
D $\quad m=3.5 h$

44 Suppose that a stove and a freezer together weigh at least 370 pounds. The weight of the stove is 170 pounds. Which inequality correctly describes these conditions for the weight of the freezer, $f$ ?

A $\quad f \geq 200$
B $\quad f>200$
C $f \leq 200$
D $\quad f<200$

Concept 7 - Geometry (6.G.1, 2, 4)
Area - $\qquad$
Perimeter - $\qquad$
Volume - $\qquad$
Surface Area - $\qquad$
Demonstrations:
Area of a Rectangle: Base $=4$ feet, Height $=3$ feet
The rectangle to the right is broken into 1 foot sections.
How many sections are there? $\qquad$
What is the area? $\qquad$


How do the length and width relate to the area? $\qquad$
Formula for Area of a Rectangle: $\qquad$

## Area of a Triangle

The rectangle at the right is broken into 2 triangles.
Based on the area of the rectangle, what is the area of each triangle? $\qquad$
How did you figure that out? $\qquad$
Formula for Area of a Triangle: $\qquad$


## Volume

The prism at the right is broken into blocks, each one unit per side.
How many blocks are in the bottom layer? $\qquad$
How do you know? $\qquad$
How many blocks are in the whole prism? $\qquad$
How do you know? $\qquad$


Formula for Volume of a Prism: $\qquad$
Area of Other Shapes: The shape at the right is broken into a rectangle and a triangle.
What is the area of the rectangle? $\qquad$
What are the base and height of the triangle? $\qquad$ and $\qquad$
How do you know? $\qquad$
What is the area of the triangle? $\qquad$
What is the area of the whole shape? $\qquad$
How do you know? $\qquad$


## Concept 7 Released EOG Questions (6.G.1, 2, 4)

29 The right rectangular prism below is made up of 8 cubes. Each cube has an edge length of $\frac{1}{2}$ inch.


What is the volume of this prism?
A 1 cubic inch
B 2 cubic inches
C 4 cubic inches
D 8 cubic inches

31 The net of a triangular right prism is shown below.


What is the surface area of the prism?
A 204 in. $^{2}$
B $\quad 228$ in. $^{2}$
C $240 \mathrm{in}^{2}{ }^{2}$
D $\quad 288 \mathrm{in}^{2}$

46 What is the volume of the right rectangular prism below?


A $4 \frac{3}{4}$ cubic inches
B $\quad 4 \frac{1}{8}$ cubic inches

C $3 \frac{3}{4}$ cubic inches
D $\quad 2 \frac{1}{8}$ cubic inches

41 Which expression represents the perimeter of the triangle?


A $9 k+36$
B $\quad 10 k+25$
C $\quad 20 k+25$
D $\quad 24 k+36$

45 The Wilsons want to put outdoor carpet on their porch.


How much carpet will be needed for their porch?

| A | $42 \mathrm{ft}^{2}$ |
| :--- | :--- |
| B | $72 \mathrm{ft}^{2}$ |
| C | $108 \mathrm{ft}^{2}$ |
| D | $144 \mathrm{ft}^{2}$ |

Abby is making a decoration. When folded, the decoration is a triangular pyramid made of four congruent equilateral triangles. Approximately, what is the surface area of Abby's decoration?

A 64 in. ${ }^{2}$
B $\quad 85$ in. $^{2}$
C $\quad 97$ in. $^{2}$
D $\quad 170 \mathrm{in} .^{2}$
A $\quad 42 \mathrm{ft}^{2}$

D $144 \mathrm{ft}^{2}$


Concept 8 - Data (6.SP.1, 2, 3, 4, 5)
Mean - $\qquad$
Median - $\qquad$
Quartile - $\qquad$
Mean Absolute Deviation (MAD) - $\qquad$

Range - $\qquad$
Interquartile Range - $\qquad$

## Example

13 students compared scores on their math midterm. They were: $60,68,71,73,76,81,82,82,85,89,92,95,99$

1. Calculate the mean, median, quartiles, range, and interquartile range of the scores.

Mean - $\qquad$ Median - $\qquad$ Q1 - $\qquad$ Q3 - $\qquad$ Range - $\qquad$ IQR - $\qquad$
2. Construct a dot plot, histogram, and box-and-whisker plot for the data.


What do you notice about each representation? Which is the best for this data set? Why?

Concept 8 Released EOG Questions (6.SP.1, 2, 3, 4, 5)
6 Which choice shows a set of data that could be represented by the box plot shown below?


32 The data below represents the numbers of books that twelve students read.

$$
2,4,7,8,9,12,14,18,19,21,30,32
$$

Which box plot correctly summarizes the data?
A $1,3,5,6,7,7,8,13,19,20$
B 1, 3, 5, 6, 6, 8, 13, 14, 19, 20
C $1,2,3,5,7,8,8,13,19,20$
D $1,5,5,6,6,6,8,13,19,20$
в graph of the temperature data is shown below.

High Temperatures
A


C


D


In which interval is the median temperature?
A $41-50$
B $51-60$
C $61-70$ 3

A


D 71-80
B


C


49 Katherine earned $84,92,84,75$, and 70 on her first 5 tests. What is the minimum grade Katherine needs to earn on the next test to have a mean of 84 ?

A 81
B 84
C 95
D 99

