

# 7th Benchmark 2 Study Guide

## Question 1 . MGSE7.EE.3

Solve the following equation.  $-5x + 3 = -22$

## Question 2 . MGSE7.EE.3

Solve the following equation.  $11x + 3 = 47$

## Question 3 . MGSE7.EE.4a

In the basketball game, Tom scored 5 points less than twice the number of points Jacob scored. Tom scored 21 points. How many points did Jacob score?

## Question 4 . MGSE7.EE.4b

Graph the solution of the inequality,  $b + 9 \geq -1$ ?

## Question 5 . MGSE.EE.4

Jerry is four times as old as Pam. Pam is 10 years old. Write an equation to show the age of Jerry.

## Question 6 . MGSE7.EE.4c

Megan earned \$46.25 working for her father. If she now has \$98.45, how much money did she begin with?

## Question 7 . MGSE7.RP.1

**FUEL** A small airplane used  $5\frac{2}{3}$  gallons of fuel to fly a 2 hour trip. How many gallons were used each hour?

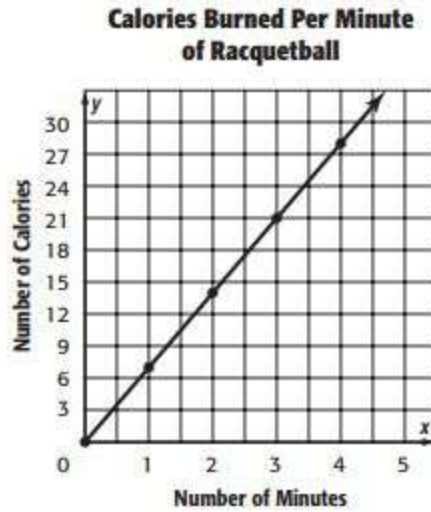
## Question 8 . MGSE7.RP.2

If it takes 9 gallons of gas to drive 270 miles, how many miles can be driven using 15 gallons of gas?

**Question 9 . MGSE7.RP.2** Bart can type 425 words in 5 minutes. At this rate, how many words can he type in 18 minutes?

**Question 10 . MGSE.7.RP.2a**

Does the graph  
relationship?



below show a proportional  
Explain why or why not.

**Question 11 .MGSE7.RP.2a**

Does the table below represent a proportional relationship? Explain why or why not.

<b>Time (min)</b>	0	1	2	3	4
<b>Calories Burned</b>	0	7	14	21	28

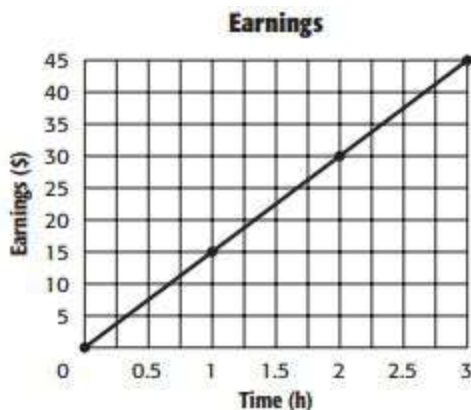
**Question 12 . MSG7.RP.2b**

What is the constant of proportionality of the table  
below?

Popcorn	
Bags of Popcorn	Cost (\$)
0	0
1	4
2	8
3	12
4	16

**Question 13 . MGSE7.RP.2b**

What is the constant of proportionality of the line?



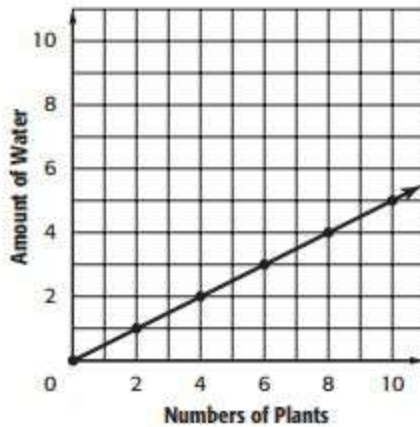
**Question 14 . MGSE7.RP.2b**

At Tim's boy scout camp, all campers pitched 360 tents in an hour. What is the constant of proportionality in tents per minute?

**Question 15. MGSE7.RP.2c** Look at the following equation.  $y = -25x$ . What is the constant of proportionality?

**Question 16 . MGSE7.RP.2d**

Look at the graph below. What does the point (4,2) mean?



**Question 17. MGSE7.RP.2d**

The graph shows the amount of money Amy earns each hour she works. What is the unit rate?



**Question 18 .MGSE7.RP.3**

David has lunch at a restaurant. If his bill was \$22.00 and David wants to leave a 11% tip, what is the total amount of the bill?

**Question 19 .MGSE7.RP.3**

What is the simple interest paid \$1,500, 4%, 2 years

**Question 20 . MGSE7.RP.3**

What is the total cost to the nearest cent?

\$750 drum set; 10% markup

**Question 21. MGSE7.RP.3** Mr. Palmer bought a camera that was originally priced at \$355. He received a 20% discount. What is the sale price of the camera?

**Question 22 . MGSE7.G.1** On a map, the scale is 1 inch = 145 miles. What is the actual distance between the two cities if the map distance is 5 inches?

**Question 23 . MGSE7.G.1** On a map, the scale is 1 inch = 75 miles. What is the actual distance between the two cities if the map distance is 6 inches?

**Question 24 . MGSE7.G.2** A triangle has 3 angles that each measure 60 degrees. What kind of triangle is it?

**Question 25 . MGSE7.G.2**

How many triangles exist with the given angle measures? 60 degrees, 90 degrees, 30 degrees

**Question 26 . MGSE7.EE.3** Write and solve an equation for the following situation: Mindy buys a pencil for \$1 and 7 packs of crayons. She spent a total of \$15. How much did each pack of crayons cost?

**Question 27 . MGSE7.RP.1**

**DRIVING** A truck driver drove 120 miles in  $1\frac{3}{4}$  hours. What is the speed of the truck in miles per hour?

**Question 28 .MGSE7.RP.1**

**RUNNING** Johnathan can jog  $3\frac{2}{5}$  miles in  $\frac{7}{8}$  hour. Find his average speed in miles per hour.

**Question 29 .MGSE7.EE.4**

There is space for 150 people to ride on a plane. Currently, 46 people are on the plane. Write and solve an inequality to find how many more people can get on the plane.

**Question 30 .MGSE7.EE.4**  $x + 3.9 = -5.8$

**Question 31 .MGSE7.EE.4c** Paul has \$186 in his checking account. He earns \$42 a week mowing lawns. If Paul saves all of his earnings, after how many weeks will he have \$690 saved?