

# Steppin' Up to Sixth Grade Math

Dear Students,

You have worked very hard this year and don't want to lose the progress made. Attached is a whole bunch of resources you can use to 'fill your time' on those rainy days or long car trips. 😊

There is a packet of multiple-choice questions and word problems to solve. All the work must be completed and turned in to me the first week of school. I suggest you pace yourself and spend a little time each week reviewing some math.

I hope each of you have a FANTASTIC, FUN-FILLED summer maybe riding your horses, swimming, going to camps, reading awesome books, creating works of art or chillaxin' with the family!! I will keep you in my thoughts and prayers and of course, in my heart, all summer long until I see you again!! Take care and please be safe and make wise choices.

I love you!

Mrs. Barrineau



P.S. No IXL 😊

Google Order of Operations Math Antics-see link below

<https://www.google.com/search?q=order+of+operations+math+antics&og=order+of+operations+math+antics&ags=chrome..69i57j0.12804j0j7&sourceid=chrome&ie=UTF-8>

Type link for Kahn Academy Algebra-**Watch Introduction to Variables and Introduction to Algebraic Expressions-**

<https://www.khanacademy.org/math/algebra>

Type link for NASA Connect-Use search tool to find **Metric & Standard Measurements Systems**

<https://www.youtube.com/user/NASAconnect/videos>

Time

60 seconds = 1 minute

60 minutes = 1 hour

24 hours = 1 day

7 days = 1 week

12 months = 1 year

52 weeks = 1 year

100 years = 1 century

Length

12 inches = 1 foot

36 inches = 1 yard

3 feet = 1 yard

5,280 feet = 1 mile

1,760 yards = 1 miles

### **Line Plots**

<https://www.khanacademy.org/math/cc-2nd-grade-math/cc-2nd-measurement-data/cc-2nd-line-plots/v/introduction-to-line-plots>

**What do mean, median and mode mean?**

**Which is best?**

<https://www.youtube.com/watch?v=hQ6BnQkD43g>

### **Geometry**

#### **2-d Attributes**

<https://www.skillsyouneed.com/num/polygons.html> **Geometry** This is a page with a lot of concise information about the attributes (things shapes have in common) of 2-dimensional (flat) shapes.

#### **Quadrilaterals**

<https://www.khanacademy.org/math/cc-fifth-grade-math/cc-5th-geometry-topic#cc-5th-quadrilaterals>

This is a page with videos about quadrilaterals and classifying (grouping) them. There is also practice here.

#### **Volume**

<https://www.youtube.com/user/mrmaisonet/videos> At the top of the page you will need to type in **Volume Rectangular Prisms** and hit the search icon...Scroll down to VOLUME RECTANGULAR PRISMS (5<sup>th</sup> one down the list)

## Surface Area

<https://www.youtube.com/user/mrmaisonet/videos> At the top of the page you will need to type in **Surface Area of a Rectangular** Prism and hit the search icon...Scroll down to SURFACE AREA OF A RECTANGULAR PRISM (2<sup>ND</sup> one down the list)

Another one... At the top of the page you will need to type in **Rectangular Prism Net-Finding the Surface** Area and hit the search icon...

PRACTICE Take a cereal box and measure the top, double it. Measure the side, double it. Measure the front, double it. Add all the areas together! TOP LxW, SIDE WxH, FRONT LxH. Double each OR~~~

$2 (LxW + WxH + LxH) = \text{Surface Area.}$

Here's a site with a lot of extra practice with answers.

<http://www.rhnet.org/webpages/jfalci/grade6math.cfm?subpage=62987>

**Directions:** In this first section, you will answer  multiple choice questions. Be sure to consider all answers and to read directions *carefully*.

1. A bus line has 64 buses in its fleet. Each of the buses can seat 85 passengers. How many passengers can the fleet of buses seat at one time?

(a) 64                      (b) 5,440                      (c) 5,460                      (d) 85

2. Guy is reading a science fiction book that is 558 pages long. If he reads 28 pages each day, how many days will it take him to read the book?

(a) 18                      (b) 19                      (c) 20                      (d) 21

3. Find the value of  $g$  in the equation below.

$$0.9 \times 0.5 = g$$

(a) 4.5                      (b) 45                      (c) 0.045                      (d) 0.45

4. Find the sum of the expression below.

$$3\frac{4}{6} + 6\frac{6}{8}$$

(a)  $10\frac{5}{12}$                       (b)  $9\frac{10}{24}$                       (c)  $9\frac{10}{14}$                       (d)  $10\frac{10}{12}$

5. Solve the expression below.

$$2 \div \frac{1}{6}$$

(a)  $\frac{1}{3}$                       (b) 3                      (c)  $\frac{1}{12}$                       (d) 12

6. Which of the following is true for the expression below? Try to answer without solving.

$$\frac{7}{8} \times 2$$

- (a) Less than 2                      (b) Equal to 2                      (c) Greater than 2

7. What is 7.951 rounded to the nearest tenth?

- (a) 7.9                      (b) 8.0                      (c) 7.95                      (d) 7.90

8. Which expanded form correctly matches 8.03?

- (a)  $(8 \times 10) + (3 \times \frac{1}{100})$                       (b)  $(8 \times 1) + (3 \times \frac{1}{10})$   
(c)  $(8 \times 10) + (3 \times \frac{1}{10})$                       (d)  $(8 \times 1) + (3 \times \frac{1}{100})$

9. A box in the shape of a rectangular prism has the dimensions shown below.



What is the volume of the box?

- (a) 36 cubic meters                      (b) 60 cubic meters                      (c) 72 cubic meters                      (d) 84 cubic meters

10. Which of the following inequalities is true?

- (a)  $0.37 < 0.3$                       (b)  $0.3 > 0.298$                       (c)  $0.298 < 0.2$                       (d)  $0.2 > 0.37$

11. Which of the following statements about quadrilaterals is not true?

- (a) Every square is also a rectangle.                      (b) Every trapezoid is also a rectangle.  
(c) Every rhombus is also a parallelogram.              (d) Every rectangle is also a parallelogram.

12. A scale rounds the weights of objects to the nearest tenth of a pound. What is 53.864 pounds rounded to the nearest tenth of a pound?

- (a) 53.8 pounds    (b) 53.9 pounds              (c) 53.86 pounds              (d) 53.87 pounds

13. Ms. Montano asked her students to solve the equation shown in the box below.

$$\frac{2}{7} + \frac{2}{3}$$

- (a) 1                      (b)  $\frac{4}{10}$                       (c)  $\frac{20}{21}$                       (d)  $\frac{4}{7}$

14. The ordered pair (4, 7) gives the location of a point on the coordinate plane. What is the first step to take in locating the point?

- (a) Starting at the origin, move 4 units to the right.  
(b) Starting at the origin, move 4 units to the left.  
(c) Starting at the origin, move 4 units up.  
(d) Starting at the origin, move 4 units down.

15. Which of the following expressions has a product that contains 6 zeros?

- (a)  $6 \times 10^4$               (b)  $8.3 \times 10^5$               (c)  $2.4 \times 10^6$               (d)  $41 \times 10^6$

16. The floor of Juan's storage unit is in the shape of a rectangle with a length of 10 feet and a width of 8 feet. The height of the storage unit is 9 feet. What is the volume of the storage unit?

- (a)  $242 \text{ ft}^3$               (b)  $360 \text{ ft}^3$               (c)  $484 \text{ ft}^3$               (d)  $720 \text{ ft}^3$

17. A group of 4 friends are sharing a package of 7 chocolate bars. If the package is divided equally among the friends, how much chocolate should each friend get?

- (a)  $7\frac{1}{4}$  bars      (b)  $4\frac{1}{3}$  bars      (c)  $3\frac{1}{2}$  bars      (d)  $1\frac{3}{4}$  bars

18. Which of the following is equivalent to 4.063?

- (a)  $4 + 0.6 + 0.3$     (b)  $4 + 0.6 + 0.03$       (c)  $4 + 0.06 + 0.03$     (d)  $4 + 0.06 + 0.003$

19. Which of the following equations is true?

- (a)  $10^3 = 3 \times 10$     (b)  $10^3 = 3 \times 10 + 10$     (c)  $10^3 = 10 \times 10 \times 10$     (d)  $10^3 = 10 + 10 + 10$

20. Carlos cuts  $\frac{1}{2}$  yard of ribbon into 3 equal pieces. What is the length of each piece of ribbon?

- (a)  $\frac{1}{6}$  yard      (b)  $\frac{1}{3}$  yard      (c)  $\frac{3}{2}$  yards      (d) 3 yards

21. Which of the following statements is true about every isosceles right triangle?

- (a) It has three acute angles.      (b) It has no obtuse angles.  
(c) It has three equal sides.      (d) It has no equal sides.

22. What is 26.387 rounded to the nearest tenth?

- (a) 30.0      (b) 26.4      (c) 26.39      (d) 26.30

23. What is the value of the expression below when  $p = 10$ ?

$$(20 + 30) \div p$$

- (a) 2                      (b) 5                      (c) 23                      (d) 60

24. Eva has 2 liters of juice and some glasses. She will pour  $\frac{1}{4}$  liter of juice into each glass. What is the total number of glasses Eva can fill with the juice?

- (a) 6                      (b) 7                      (c) 8                      (d) 9

25. Tess evaluated an expression by subtracting 6 from 15 and then multiplying the result by 4. Which of the following could be the expression Tess evaluated?

- (a)  $(4 \times 6) - 15$       (b)  $4 \times (15 - 6)$       (c)  $(6 + 15) \times 4$       (d)  $6 \times (15 - 4)$

26. Which of the following types of quadrilaterals always has perpendicular sides?

- (a) Rhombus      (b) Rectangle      (c) Trapezoid      (d) Parallelogram

27. What digit is in the hundredths place of 1.258?

- (a) 1                      (b) 2                      (c) 5                      (d) 8

28. A science museum has a fish tank in the shape of a rectangular prism.

- It has a length of 8 feet.
- It has a width of 3 feet.
- It has a height of 4 feet.

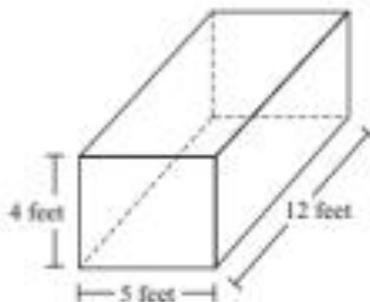
What is the volume of the fish tank?

- (a)  $15 \text{ ft}^3$                       (b)  $30 \text{ ft}^3$                       (c)  $96 \text{ ft}^3$                       (d)  $136 \text{ ft}^3$

**Directions:** In this next section, you will answer  short answer questions. Be sure to read directions carefully and show your work.

51. Spencer wants to put his 2,188 stamps in a binder. Each page in the binder holds 24 stamps. How many stamps will be on the last page in the binder?
  
52. Maya is mailing 3 gifts to her granddaughter for her birthday. The weights of the gifts were 4.5 pounds, 2.75 pounds, and 0.68 pounds. What is the total weight of the gifts?
  
53. Rick has 35 oranges. He divides them equally into 7 bags. What fraction represents the number of oranges Rick puts in each bag?
  
54. Dana had 2 feet of ribbon. She cut the ribbon into 5 equal pieces to make large bows. How long is each piece of ribbon?
  
55. How many  $\frac{1}{4}$  mile segments are in a 3 mile relay?
  
56. It snowed  $37\frac{1}{4}$  inches of snow last year, which is 2 times more snow than average. What is the average snowfall?
  
57. Draw a number line to show the integers between -10 and 10.
  
58. The value of the 7 in 27,459 is how many times the value of the 7 in 40,735?
  
59. Judy spent  $\frac{1}{2}$  of her savings on a bicycle and  $\frac{2}{5}$  of her savings on a helmet. What is the total fraction of her savings that Judy spent on a bicycle and a helmet?

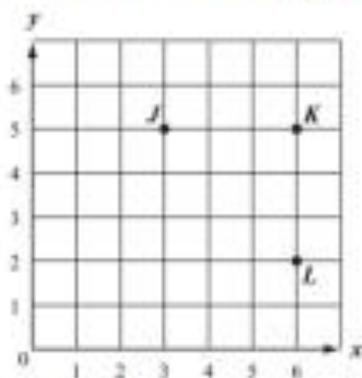
60. The dimensions of a rectangular prism are shown below.



What is the volume, in cubic feet, of the rectangular prism?

61. Fritz did 875 sit-ups in 7 days. He did the same number of sit-ups each day. What is the total number of sit-ups Fritz did each day?

62. Tiesha plotted points J, K, and L on a coordinate grid, as shown below.



Tiesha wants to plot point M so that points J, K, L, and M form the vertices of a square. What ordered pair represents the best location for Tiesha to plot point M?

63. One megaton is equivalent to 1,000,000 tons. What is 1,000,000 written as a power of ten?

64. Write a mixed number that is greater than  $\frac{12}{4}$  and less than  $\frac{15}{4}$ .

## REVIEW OF OPERATIONS OF FRACTIONS

Reduce to lowest terms.

1.  $\frac{3}{12}$

2.  $\frac{6}{18}$

3.  $\frac{8}{10}$

4.  $\frac{14}{21}$

5.  $\frac{9}{15}$

6.  $\frac{8}{14}$

7.  $\frac{20}{25}$

8.  $\frac{10}{12}$

9.  $\frac{8}{20}$

10.  $\frac{12}{16}$

11.  $\frac{20}{45}$

12.  $\frac{6}{16}$

Change each improper fraction to a mixed number or whole number.

13.  $\frac{13}{2}$

14.  $\frac{11}{4}$

15.  $\frac{18}{3}$

16.  $\frac{7}{4}$

17.  $\frac{40}{8}$

18.  $\frac{10}{7}$

19.  $\frac{16}{3}$

20.  $\frac{22}{9}$

21.  $\frac{35}{7}$

22.  $\frac{19}{5}$

23.  $\frac{11}{3}$

24.  $\frac{30}{10}$

Change to an improper fraction.

25.  $3\frac{1}{7}$

26.  $5\frac{2}{3}$

27.  $7\frac{3}{5}$

28.  $4\frac{3}{7}$

29.  $2\frac{3}{4}$

30.  $7\frac{1}{8}$

31.  $6\frac{1}{5}$

32.  $1\frac{4}{7}$

33.  $4\frac{2}{3}$

34.  $7\frac{4}{5}$

35.  $6\frac{1}{2}$

36.  $7\frac{4}{9}$

Compute. Answer should be in lowest terms.

37. 
$$\begin{array}{r} 5\frac{3}{8} \\ + 4\frac{1}{8} \\ \hline \end{array}$$

38. 
$$\begin{array}{r} 8\frac{2}{5} \\ + 9\frac{3}{10} \\ \hline \end{array}$$

39. 
$$\begin{array}{r} 8\frac{3}{4} \\ + 5\frac{1}{2} \\ \hline \end{array}$$

40. 
$$\begin{array}{r} \frac{11}{3} \\ + 4\frac{1}{2} \\ \hline \end{array}$$

41. 
$$\begin{array}{r} 6\frac{5}{6} \\ + 2\frac{3}{4} \\ \hline \end{array}$$

42. 
$$\begin{array}{r} 7\frac{1}{8} \\ + 5\frac{7}{8} \\ \hline \end{array}$$

43. 
$$\begin{array}{r} 8\frac{4}{5} \\ - 3\frac{2}{5} \\ \hline \end{array}$$

44. 
$$\begin{array}{r} 9 \\ - 4\frac{1}{4} \\ \hline \end{array}$$

45. 
$$\begin{array}{r} 6\frac{7}{9} \\ - 3\frac{2}{3} \\ \hline \end{array}$$

46. 
$$\begin{array}{r} 5\frac{1}{4} \\ - 3\frac{1}{2} \\ \hline \end{array}$$

47. 
$$\begin{array}{r} 8\frac{2}{7} \\ - 4\frac{3}{4} \\ \hline \end{array}$$

48. 
$$\begin{array}{r} 7\frac{1}{8} \\ - 4\frac{5}{6} \\ \hline \end{array}$$

$$49. \frac{4}{5} \times 80$$

$$50. \frac{1}{4} \times 60$$

$$51. \frac{2}{3} \times \frac{5}{9}$$

$$52. \frac{3}{4} \times 6 \frac{1}{2}$$

$$53. 7 \frac{1}{2} \times 3 \frac{2}{3}$$

$$54. 8 \times 7 \frac{1}{4}$$

$$55. 32 \div 2 \frac{2}{3}$$

$$56. 3 \frac{1}{2} \div 4$$

$$57. 3 \frac{2}{3} \div 1 \frac{2}{7}$$

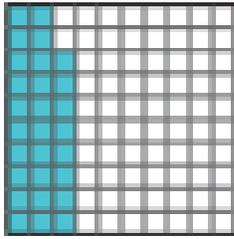
$$58. 16 \div 2 \frac{2}{3}$$

$$59. 8 \frac{1}{3} \div \frac{1}{2}$$

$$60. 40 \div 4 \frac{4}{5}$$

# Introduction to Percents

Keep going! Remember, each large square is equal to one whole.



Percent:

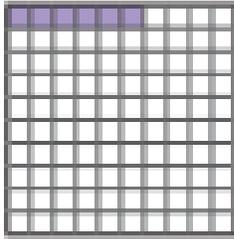
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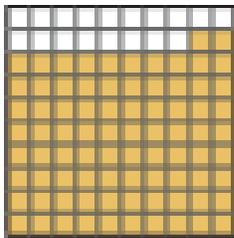
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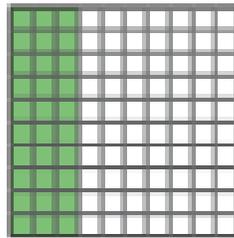
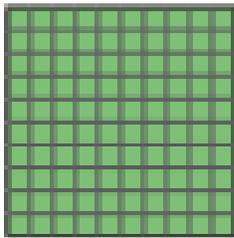
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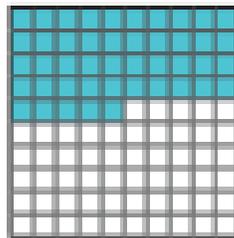
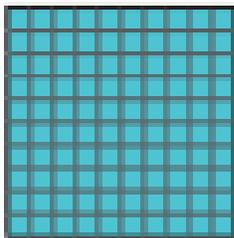
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