

University School of the Lowcountry

Summer Math Review

Algebra Readiness is going to be AMAZING! Let's make sure you're set-up for success from the very start. Practice all of your math facts over the summer! Mastery of facts allows us to dive into higher level concepts I am going to introduce in Algebra Readiness.

All students entering Algebra Readiness in August are expected to know:

- Addition and subtraction "fact families" through 20.
- Multiplication and division "fact families" through 12.
- Standard Algorithm is the preferred method for [multi-digit multiplication](#) and [division](#).
- Calculating: Area, Perimeter, and Volume.
- Finding: [Greatest Common Factor \(GCF\)](#) and the [Least Common Multiple \(LCM\)](#).
- [Decimal Operation Rules](#)
- [Divisibility Rules](#)
- [Converting Decimals to Fractions](#)
- [Converting Fractions to Decimals](#)

Resources:

Flash Cards are great for road trips!

Printables: [Math Worksheets](#)

[Khan Academy](#)

[Math Mammoth](#)

[Quizlet](#)

[XtraMath](#)

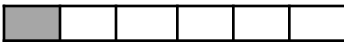
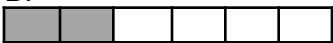



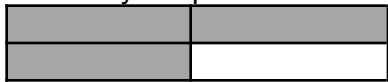
[Prodigy](#)

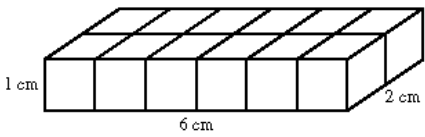
[Academic Skill Builders](#)

[Math Playground](#)

Apps: 7 Minute Math Genius Mental Math Cards Games & Tips

Complete the following packet and turn in on the first day of Math Class.

<p>What is the product of $\frac{4}{5} \times \frac{6}{7}$?</p>	<p>What is the quotient of $\frac{4}{7} \div \frac{2}{3}$?</p>
<p>What is 243 multiplied by 10?</p>	<p>What is 85 multiplied by 0.01?</p>
<p>What is $18.6 \div 3$?</p>	<p>What is $12.08 \div 4$?</p>
<p>What is the result when 0.5 is multiplied by 1.1?</p>	<p>What is the product of 38.27×1.5?</p>
<p>Find the quotient.</p> $\begin{array}{r} \\ 0.5 \overline{) 3.75} \end{array}$	<p>What is 76.8 divided by 3.2?</p>
<p>Julia needs to find a fraction that is equivalent to $\frac{1}{2}$. Which method could she use to find an equivalent fraction?</p> <p>A. She can multiply $\frac{1}{2} \times \frac{1}{2}$ to get $\frac{1}{4}$, because $\frac{1}{2} = \frac{1}{4}$.</p> <p>B. She can divide $\frac{1}{2} \div \frac{1}{2}$ to get 1, because $\frac{1}{2} = 1$.</p> <p>C. She can multiply $\frac{1}{2} \times \frac{2}{2}$ to get $\frac{2}{4}$, because $\frac{2}{2} = 1$ and multiplying a fraction by 1 does not change its value.</p> <p>D. She can divide $\frac{1}{2} \div 1$ to get $\frac{1}{2}$, because dividing a fraction by 1 does not change its value.</p>	<p>Which model shows $\frac{1}{3}$ of 6 shaded?</p> <p>A. </p> <p>B. </p> <p>C. </p> <p>D. </p>
<p>Which expression is equal to $\frac{7}{2}$?</p> <p>A. $7 + 2$ C. 7×2 B. $7 - 2$ D. $7 \div 2$</p>	<p>What is the quotient of $\frac{5}{4}$?</p>
<p>What is $\frac{1}{2}$ of $\frac{1}{5}$?</p>  <p>A. $\frac{1}{10}$ C. $\frac{2}{10}$ B. $\frac{1}{7}$ D. $\frac{2}{7}$</p>	<p>How many $\frac{1}{8}$ pieces are there in $\frac{3}{4}$?</p>  <p>A. 2 C. 4 B. 3 D. 6</p>

<p>Mark the statement that is true.</p> <p>A. Volume is the same as capacity. B. Volume is the amount a container can hold. C. Volume is measured in liquid units such as cups and quarts. D. Volume is the space that can be occupied by an object.</p>	<p>Use the formula $V=LxWxH$ to find the volume of the rectangular prism.</p> 
<p>Susie ran 2.35 kilometers. What is the value of the 3 in 2.35?</p>	<p>What is the product of $63 \times 1,000$?</p>
<p>Which expression shows how to find the product of 7×0.45?</p> <p>A. $7 \times 4 \times 5$ B. $(7 \times 5) + (7 \times 4)$ C. $(7 \times 0.5) + (7 \times 4)$ D. $(7 \times 0.05) + (7 \times 0.4)$</p>	<p>Which expression shows how to find the quotient of $4.8 \div 2$?</p> <p>A. $(4 \div 2) + (0.8 \div 2)$ B. $(4 \div 2) + (0.08 \div 2)$ C. $(0.4 \div 2) + (8 \div 2)$ D. $(0.04 \div 2) + (0.8 \div 2)$</p>
<p>What is the result of multiplying 35.8 by 7.9?</p>	<p>What is the product of 1.508×0.7?</p> <p>A. 10,556 C. 1.5056 B. 10.556 D. 1.0556</p>
<p>What is the result of dividing 691.2 by 7.2?</p>	<p>Cheese costs \$4.20 per pound. If Ms. Rivera spent \$6.30 on cheese, how many pounds did she buy?</p>
<p>Which fractions are NOT equal?</p> <p>A. $\frac{2}{5}$ and $\frac{5}{8}$ B. $\frac{1}{2}$ and $\frac{4}{8}$ C. $\frac{1}{3}$ and $\frac{3}{9}$ D. $\frac{3}{4}$ and $\frac{12}{16}$</p>	<p>Simplify the fraction $\frac{15}{50}$.</p>
<p>Write a mixed number equal in value to $\frac{9}{7}$?</p>	<p>What is the quotient of $\frac{81}{9}$?</p>

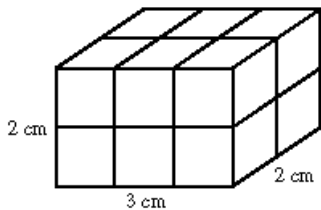
Use divisibility rules to determine if each number is divisible by 2, 3, 4, 5, 6, 9, or 10. If the number is not divisible by any of these, write "none".

1. 235 2. 671 3. 1,520

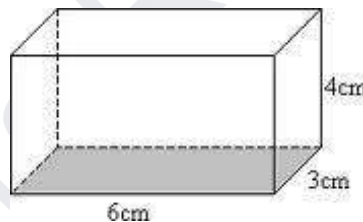
4. 495 5. 708 6. 1,316

Clay puts an average of 1,128 miles on his car each month. At this rate, how many miles will Clay put on his car in 5 years?

Use the formula $V=LxWxH$ or $V= B x H$, to find the volume of the rectangular prism.



Find the volume.



Find the LCM of each set of numbers.

1. 27 and 45

2. 8 and 52

Write a number on the line that makes the statement true.

$$10^{\quad} = 1,000,000,000$$

Divisibility Rules

2 - The last digit will be 0, 2, 4, 6, 8

3 - The sum of the digits is a multiple of 3 ($3654...3 + 6 + 5 + 4 = 18$ ($18 \div 3 = 6$))

4 - The last two digits are a multiple of 4 ($12364...64 \div 4=16$)

5 - The last digit will be 0 or 5

6 - The number is divisible by BOTH 2 & 3

8 - The last three digits are divisible by 8

10 -The last digit will be 0

12 - The number is divisible by BOTH 3 & 4

15 - The number is divisible by BOTH 3 & 5

DECIMAL RULES

+ Addition

- 1 Line up the decimals
- 2 Fill empty spaces with zero
- 3 Bring the decimal down
- 4 Add from right to left

$$12.1 + 13.08$$

$$\begin{array}{r} 12.10 \\ + 13.08 \\ \hline 25.18 \end{array}$$

- Subtraction

- 1 Line up the decimals
- 2 Fill empty spaces with zero
- 3 Bring the decimal down
- 4 Subtract from right to left

$$27.1 - 13.08$$

$$\begin{array}{r} 27.10 \\ - 13.08 \\ \hline 14.02 \end{array}$$

÷ Division

- 1 Make sure the divisor is a whole number.
- 2 Move the decimal up into its place in the quotient.
- 3 Divide like usual placing each number in the quotient.

$$\begin{array}{r} 5.04 \\ 2 \overline{)10.08} \\ \underline{-10} \\ 008 \\ \underline{-8} \\ 0 \end{array}$$

× Multiplication

- 1 Multiply like usual.
- 2 Count the number of decimals in both factors.
- 3 Move the decimal over in the answer to match the number of spaces in both factors.

$$\begin{array}{r} 10.08 \\ \times 1.2 \\ \hline + 2016 \\ 10080 \\ \hline 12.096 \end{array}$$

Formulas:

Perimeter = $2(l+w)$

Area = $l \times w$

Volume = $l \times w \times h$