

Summer Math Practice for Upcoming 7th Graders:

Due by August 10, 2026

Complete the following practice problems to review important concepts before the new school year. In 7th grade, we focus heavily on the processes that we use to solve a problem, so understanding **how** you get the answer that you write down is a very important part of truly mastering that skill. To help me see where your current level of understanding is, **please use words or numbers to show me how you arrived at each of your answers.** (Also, please do not use calculators on any question!)

Standards Covered

Ratios & Proportional Relationships

- **6.RP.A.1** – Understand ratio language
- **6.RP.A.2** – Find unit rates
- **6.RP.A.3** – Solve ratio/rate problems

Number System

- **6.NS.B.2–4** – Divide, decimal operations, GCF/LCM
- **6.NS.C.5–8** – Integers, coordinate plane, absolute value

Expressions & Equations

- **6.EE.A.1–4** – Write, evaluate, and simplify expressions
- **6.EE.B.5–8** – Solve equations and inequalities

Fraction Skills

- Add/subtract/multiply/divide fractions and mixed numbers

Decimal & Place Value Skills

- Compare, round, and compute decimals

Geometry & Measurement

- Convert units
- Area/perimeter of rectangles
- Area of triangles with whole numbers, decimals, and fractions

Foundational Review

- 5th and 4th grade operations, measurement, and algebraic reasoning

If you need help finding or reviewing a process, I've found many good videos through Khan Academy, Math with Mr. J, or Mathantics. They usually do a good job explaining the "why" behind the math, and they use kid-friendly explanations while clearly showing the steps of the process.

I'm so excited for our upcoming year together! See you in August! ☺

Mrs. Griffiths

Week 1: Measurement, Area, & Geometry

Focus Skill: Converting measurements and finding area/perimeter of rectangles and triangles.

<p>Use a proportion to convert 7 yards to inches.</p>	<p>Use a proportion to convert 96 ounces to pounds.</p>
<p>Use a proportion to convert 5 gallons to cups.</p>	<p>Convert 3.54 kilometers to centimeters.</p>
<p>Find the area of a rectangle with length 9.7 cm and width 6.4 cm.</p>	<p>Find the perimeter of a rectangle with sides $12\frac{5}{6}$ ft and $8\frac{1}{3}$ ft.</p>
<p>Find the area of triangle with a base of $2\frac{3}{4}$ and a height of 8.</p>	<p>A rectangular window has side lengths of 16.8 inches and 3.29 feet. Find its perimeter in inches.</p>

Week 2: Place Value & Decimal Operations

Focus Skill: Place value, rounding, comparing, and decimal computation.

<p>Each table at a school event is 9.5 feet long. There are 4 tables lined up end to end. What is the total length of the tables?</p>	<p>$1,562 \div 4 =$ (Write your answer as a decimal)</p>
<p>Compare 7.405 and 7.45 using a $<$, $>$ or $=$ sign.</p>	<p>Round 93.786 to the nearest tenth.</p>
<p>Compare 7.405 and $7\frac{3}{8}$ using a $<$, $>$ or $=$ sign.</p>	<p>Evaluate 654.9×10^4</p>
<p>A bookstore earned \$12.75 from sales in the morning and \$68.09 from online orders that afternoon. How much total profit did the bookstore earn?</p>	<p>Order from least to greatest: 4.8, 4.08, $4\frac{1}{8}$, 4.812, $4\frac{1}{2}$, 4.18, 4.801</p>

Week 3: Ratios, Rates, & Proportional Reasoning

Focus Skill: Solving ratio and unit rate problems.

<p>There are 780 students at Harding Academy, and 28% are involved in a spring sport. So, how many students are in a spring sport?</p>	<p>Snack bags of chips are sold in packs of 8. If 7 packs of 8 cost \$15.12, how much does a single snack bag of chips cost?</p>
<p>A grocery store sells a bag of 3 oranges for \$0.90. If Lavaughn spent \$2.40 on oranges, how many did he buy?</p>	<p>At Montrell's store, the cost of seven bags of chips is \$19.00. At Melanie's store, the cost of twenty-two bags of the same chips is \$57.00 to buy. Who has the better unit price?</p>
<p>There are 528 calories in eight ounces of a certain ice cream. How many calories are there in three pounds?</p>	<p>A dressmaker needs to cut 18-inch pieces of ribbon from rolls of ribbon that are 9 feet in length. How many 18-inch pieces can the dressmaker cut from 15 of these rolls of ribbon?</p>
<p>Kevin's car used 13 gallons to travel 429 miles. How far can he travel on 5 gallons?</p>	<p>Rashon bought 15 fish sticks for \$31.50. How much would it cost for 14 fish sticks?</p>

Week 4: Fraction Addition & Subtraction

Focus Skill: Solving fraction problems with unlike denominators.

Solve and Simplify: $\frac{2}{5} + \frac{3}{10} =$

Solve and Simplify: $\frac{7}{8} - \frac{1}{4} =$

Solve and Simplify: $8\frac{5}{6} + \frac{1}{3} =$

Solve and Simplify: $5\frac{9}{10} - 3\frac{2}{5} =$

Sarah is making a quilt. On Monday she finished $\frac{3}{4}$ of the quilt. On Tuesday she completed another $\frac{5}{12}$ of her quilt. How much has she completed total of her quilt?

A large water tank was $\frac{11}{15}$ full at the start of the day. During the day, $\frac{2}{3}$ of the tank was used for watering plants. How much water is left in the tank?

$1\frac{1}{2} + 2\frac{3}{4} =$

$4\frac{1}{3} - 2\frac{5}{6} =$

Week 5: Fraction Multiplication & Division

Focus Skill: Multiplying and dividing fractions in real-world and numerical problems.

$$\frac{3}{4} \times \frac{2}{5} =$$

$$4\frac{5}{6} \times \frac{3}{8} =$$

$$\frac{7}{9} \div \frac{1}{3} =$$

$$8\frac{4}{5} \div 3\frac{2}{3} =$$

Each day after soccer practice, Marcus drinks $\frac{2}{3}$ of a bottle of Gatorade. If he does this for 3 days, how many bottles of Gatorade does Marcus drink in all?

A recipe calls for $\frac{4}{7}$ cup of sugar for one batch of cookies. Mia has $3\frac{3}{4}$ cup of sugar available. How many full batches of cookies can she make?

$$2\frac{1}{2} \times 1\frac{1}{5} =$$

$$3\frac{3}{4} \div 1\frac{1}{2} =$$

Week 6: Expressions, Equations, & Inequalities

Focus Skill: Writing and solving expressions/equations.

<p>Write an inequality and then graph it on a number line: “Nina is making cookies for a bake sale. She needs to sell at least 14 cookies to meet her goal.”</p>	<p>Combine like terms: $9y^2 + 4p + 8 - 6y^2 + 7p + 2$</p>
<p>$6 \times (7.64 - 3.41) \div 3$</p>	<p>Write an expression and then solve: “5 more than a number is 17”</p>
<p>$13 + (18 \times 6) - 6 + 8$</p>	<p>$18 \div 3 + 9 \times 2$</p>
<p>Solve and graph on a number line: $x + 8 < 21$</p>	<p>Solve: $5n - 8 = 27$</p>

Week 7: Patterns & Problem Solving

Focus Skill: Identifying numerical patterns and solving multi-step problems.

<p>A rectangle has vertices on a coordinate plane of (1,2), (1,7), (6,2), (6,7). What is the rectangle's perimeter?</p>	<p>What is the distance between (-3,4) and (5,4) using absolute value.</p>
<p>What quadrant would the following points be in:</p> <p>A. (3, -7) _____</p> <p>B. (-5, -4) _____</p> <p>C. (9, 14) _____</p> <p>D. (-8, 4) _____</p>	<p>Point A is located at (-6,4) on the coordinate plane. Point A is reflected over the y-axis to create point B. Then, point B is reflected over the x-axis to create point C. List the ordered pairs for points A, B, and C.</p>
<p>Which is greater: -1 or -5?</p>	<p>Complete the following using either a <, >, or = sign.</p> <p>-5.5 _____ -3.1</p>
<p>Order: -4, -4.35, -4.9, -5, -4.3</p>	<p>Solve and graph on a number line: $-7.2 < x + 4.2$</p>

Week 8: Miscellaneous Skills

Focus Skills: Other skills that will be necessary for 7th grade and that we will be building on.

<p>Find the Greatest Common Factor (GCF) and Least Common Multiple (LCM) of 20 and 36.</p>	<p>Use the distributive property to write an equivalent expression.</p> $8(2n + 8)$
<p>Evaluate: $9,813 \div 15 =$ (write your answer as both a decimal and a fraction)</p>	<p>Convert $\frac{7}{8}$ to a decimal.</p>
<p>At a local grocery store, they're selling 3 twelve packs of soda for \$27.36. How much does a single can cost?</p>	<p>Bianca has a marble collection. She has collected 48 green marbles and 16 purple marbles. What is the ratio that she has of purple marbles to green marbles?</p> <p>What are two equivalent ratios that we could write for Bianca's collection?</p>
<p>Write 2 equivalent fractions to $\frac{3}{7}$</p>	<p>At the grocery store, apples cost \$1.97 per pound, tomatoes cost \$1.84 per pound, and onions cost \$3.52 per pound. Ethan buys 4 pounds of apples, $3\frac{1}{2}$ pounds of tomatoes, and 4 pounds of onions. How much change will he get if he pays with a fifty dollar bill?</p>