NAME _____

Rising 7th Grade Math 2026 Summer Packet
Parent Letter

Dear Parents and Guardians,

Over the summer, it is important for students to continue practicing the math skills they learned during 6th grade. This packet is designed to review key concepts from the **Tennessee 6th Grade Math Standards** and prepare students for a successful transition into 7th grade math.

The packet includes problems focused on:

- Ratios and proportional reasoning
- Expressions and equations
- Integers and rational numbers
- Geometry and measurement
- Problem solving and reasoning

To help students stay on track without feeling overwhelmed, the packet is divided into **weekly sections**. Students should complete a small portion each week and are expected to work **independently**, showing all of their work and doing their best on every problem.

Encourage your child to take their time, check their answers, and learn from mistakes. Consistent practice over the summer will help build confidence and ensure they are ready for the challenges of 7th grade math.

Thank you for your support.

Sincerely,

Ami Moffatt

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🌞 Student Directions

Welcome to your Rising 7th Grade Math Summer Packet!

This packet is designed to help you **review what you learned in 6th grade** and get ready for 7th grade.

💡 How to Complete the Packet

- Complete **8–10 problems each week**
- Work at a steady pace—do not try to finish all at once
- Take your time and do your best

✏️ Expectations

- Show all your work
- NO CALCULATOR
- Solve each problem on your own
- Use math vocabulary when explaining your thinking
- Check your answers and correct mistakes

📅 Summer Pacing Guide

Week 1 (June 1–7)
Problems 1–10 ☐

Week 2 (June 8–14)
Problems 11–20 ☐

Week 3 (June 15–21)
Problems 21–30 ☐

Week 4 (June 22–28)
Problems 31–40 ☐

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Week 5 (June 29–July 5)
Problems 41–50 ☐

Week 6 (July 6–12)
Problems 51–60 ☐

Week 7 (July 13–19)
Problems 61–68 ☐

Week 8 (July 20–31)
Problems 69–75 ☐

⭐ Challenge Problems

Problems marked with a ⭐ are more challenging. Try your best—they will help you grow as a mathematician.

🎯 Goal

By completing this packet, you will return to school feeling confident and prepared for 7th grade math.

You've got this!

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🔢 Section 1: Ratios & Proportional Relationships (7.RP)

Use ratios, rates, and proportions to solve problems

Reminder:

- A ratio compares two quantities.
- A rate compares two quantities with different units.
- A proportion shows two ratios that are equal.
- You can rewrite a ratio as a fraction and reduce it to find a unit rate (with a denominator of 1).

Ratio / Unit Rate Example:

$$\frac{8}{4} = \frac{2}{1} \rightarrow 2 \; per \; 1$$

Unit Rate Example

If a car travels **120 miles in 3 hours**, you can write the rate as:

$$\frac{120}{3} = \frac{40}{1} \rightarrow 40 \; miles \; per \; hour$$

Proportion Example

Solve the proportion:

$$\frac{3}{4} = \frac{x}{12}$$

Step 1: Cross multiply.

$$3 \times 12 = 4 \times x$$

Step 2: Multiply.

$$36 = 4x$$

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Step 3: Divide both sides by **4**.

$$36 \div 4 = x$$

Step 4: Solve.

x = 9

Foundations

1)
Write the ratio of **8 apples to 4 oranges** in simplest form.
Answer: _____

2)
Write the ratio **15:20** in simplest form.
Answer: _____

3)
A class has **12 boys and 18 girls**.
Write the ratio of boys to girls in simplest form.
Answer: _____

Unit Rates

4)
A car travels **120 miles in 3 hours**.
What is the unit rate in miles per hour?
Answer: _____

5)
You earn **$45 for 5 hours** of work.
What is your hourly rate?
Answer: _____

6)
A recipe uses **6 cups of flour for 3 batches**.
How many cups of flour are used per batch?
Answer: _____

Proportional Relationships

7)
Solve the proportion:

$$\frac{3}{4} = \frac{x}{12}$$

8)
Solve the proportion:

$$\frac{5}{8} = \frac{15}{x}$$

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9)
Are the ratios $\frac{6}{9}$ **and** $\frac{10}{15}$ equivalent?
Explain your answer.
Answer: _____

Word Problems

10). If **4 notebooks cost $12**, how much would **10 notebooks** cost at the same rate?
Answer: _____

11). A map shows that **2 inches represent 10 miles**.
How many miles does **5 inches** represent?
Answer: _____

12) ⭐. A store sells **3 shirts for $24**.
How much would **7 shirts** cost at the same rate?
Answer: _____

13). A car uses **3 gallons of gas to travel 75 miles**. At this rate, how far can the car travel using **5 gallons of gas**?

Answer: _____ miles

14). A recipe uses **2 cups of sugar for every 5 cups of flour**.

If you use **15 cups of flour**, how much sugar do you need?

Answer: _____ cups

Challenge

15) ⭐A runner travels **5 miles in 40 minutes**. At this rate, how far will the runner travel in **1 hour**?

Answer: _____ miles

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Find the Error

Use words to describe the error and then correct the problem.

16). A student says:

$$\frac{6}{8} = \frac{3}{8}$$

17). A student says:
If **4 items cost $8**, then **8 items cost $12**

18) ⭐. A student solves:

$$\frac{3}{5} = \frac{x}{20} \rightarrow x = 8$$

🔢 Section 2: Integers & Rational Numbers (7.NS)

Add, subtract, multiply, and divide integers and rational numbers

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Reminder:

- Integers include positive and negative whole numbers.
- When adding integers with the same sign, add and keep the sign.

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- When adding integers with different signs, subtract and keep the sign of the larger number.
- Subtracting an integer is the same as adding its opposite.
- When multiplying or dividing integers:
  - Same signs → positive answer
  - Different signs → negative answer

Integer Operations

19)
-6 + (-4)

20)
7 + (-10)

21)
$-15 - 5$

22)
$8 - (-3)$

Multiplication & Division

23)
-4 × 6

24)
-5 × -3

25)
24 ÷ (-6)

26)
-36 ÷ -9

Rational Numbers (Fractions & Decimals). Show all work.

27)
$-\frac{3}{4} + \frac{1}{2}$

28)
$\frac{5}{6} - \frac{7}{3}$

29)
$-2.5 + 3.8$

30)
$4.2 - 6.7$

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Word Problems: Show work.

31)
The temperature was **-2°F** in the morning and dropped **5°F** during the night.
What is the new temperature?

32)
You owe **$12** and then spend another **$8**.
What is your total balance?

33)
A diver is at **-10 feet** below sea level and rises **6 feet**.
What is the diver's new position?

34) ⭐
A bank account is at **-25 dollars**. You deposit **$40**, then withdraw **$15**.
What is the final balance?

Challenge

35) ⭐

$$-3 \times (4 + -2)$$

36) ⭐

$$-5 \times -2 + 8 \div (-4)$$

Find the Error

Use words to describe the error and then solve the problem correctly.

37)
A student says:
-6 + 4 = -10

38)
A student says:
-3 × -2 = -

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39) ⭐
A student says:
8 − (−3) = 5

🔢 Section 3: Expressions & Equations (7.EE)

Use expressions and equations to solve problems

Reminder:

- An expression does not have an equal sign.
- An equation has an equal sign and can be solved.
- To solve equations, use inverse operations to isolate the variable.
- Always check your solution by substituting it back into the original equation.

Evaluate Expressions

40)
Evaluate when **x = 3**:
2x + 5

41)
Evaluate when **y = -2**:
4y − 7

42)
Evaluate when **a = 5**:
3a + 2a

43)
Evaluate when **b = 4**:
6b − 3b + 8

Simplifying Expressions: Add like terms.

44)
$3x + 5x$

45)
$7y - 2y + 4$

46)
$5a + 3 - 2a$

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Solving Equations Using Correct Steps.

47)
$x + 6 = 14$

48)
$y - 9 = -3$

49) $3x = 21$

50)
$4y + 8 = 20$

Multi-Step Equations: Solving using correct steps.

51) $2x + 5 = 17$

52) ⭐ $3x - 4 = 11$

53) ⭐ $5x + 7 = 2x + 19$

Word Problems: Show work.

54)
You buy some notebooks. Each notebook costs **$3**. You spend a total of **$15**.
How many notebooks did you buy?

55)
A number increased by **8** equals **20**.
What is the number?

56) ⭐
Three times a number minus **5** equals **16**.
What is the number?

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Find the Error

Use words to describe the error and then solve the problem correctly.

57)

$x + 4 = 10 \rightarrow x = 14$

58)

$3x = 12 \rightarrow x = 36$

59) ⭐

$2x + 5 = 15 \rightarrow x = 10$

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🔢 Section 4: Geometry & Measurement (7.G)

Solve problems involving area, volume, and geometric relationships

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Directions:
Solve each problem. **Show all of your work**, **use the correct formula**, and **label your answers correctly**.

- Use units for perimeter (ex: cm, ft)
- Use square units for area (ex: cm^2, ft^2)
- Use cubic units for volume (ex: cm^3, ft^3)

Formulas:

- Area of a rectangle: **A = length × width**
- Area of a triangle: **A = 1/2 × base × height**
- Area of a circle: **$A = \pi r^2$**
- Circumference of a circle: **$C = 2\pi r$**
- Volume of a rectangular prism: **V = length × width × height**
- Surface area of a rectangular prism: **SA = 2lw + 2lh + 2wh**

Area of Shapes: Show all work and label correctly.

60)
Find the area of a rectangle.

Length = **8 cm**
Width = **5 cm**

61)
Find the area of a triangle.

Base = **10 m**
Height = **6 m**

62)
Find the area of a circle.

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Radius = **4 ft**
Use $\pi \approx 3.14$

Perimeter & Circumference: Show all work and label correctly.

63)
Find the perimeter of a rectangle.

Length = **12 in**
Width = **7 in**

64)
Find the circumference of a circle.

Radius = **5 cm**
Use $\pi \approx 3.14$

Volume: Show all work and label correctly.

65)
Find the volume of a rectangular prism.

Length = **6 m**
Width = **4 m**
Height = **3 m**

66)
Find the volume of a rectangular prism.

Length = **10 ft**
Width = **2 ft**
Height = **5 ft**

Surface Area: Show all work and label correctly.

67)
Find the surface area of a rectangular prism.

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Length = **4 cm**
Width = **3 cm**
Height = **2 cm**

Word Problems: Show work.

68)
A rectangular garden is **12 m long** and **8 m wide**.
What is the area of the garden?

69)
A circular pool has a radius of **7 ft**.
What is the area of the pool? (Use $\pi \approx 3.14$)

70) ⭐
A box measures **5 ft by 4 ft by 3 ft**.
How much space does the box hold?

Challenge

71) ⭐
A rectangle has an area of **48 square units** and a width of **6 units**.
What is the length?

72) ⭐
A circle has a diameter of **10 cm**.
Find the circumference. (Use $\pi \approx 3.14$)

Find the Error

Use words to describe the error and then solve the problem correctly.

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73)
A student says:
Area = **8 + 5 = 13 cm²**

74)
A student says:
Volume = **6 × 4 + 3 = 27 m³**

75) ⭐
A student says:
Circumference = **2 × 5 = 10 cm**