



Dear Parents,

The math packet for rising 6th graders is designed to help your son practice his math skills over the summer months. We know how easy it is to forget something you learned unless you practice it, and we hope that by completing this packet your son will get off to a strong start in math in September. The problems in the packet should be familiar to him. If he does not understand something, please encourage him to watch a video about it on YouTube or log in to IXL and search for the topic.

This packet is highly recommended. We will collect it at the start of the year to see who completed it. We included the answer key so your son can check his work as he finishes each section. This should give him an idea of different topics he may need to review. He can use IXL or Khan Academy to get additional practice if he needs it.

Your son will take an assessment at the start of the year to review many of these topics. We expect him to have mastered rounding, place value, simplifying fractions, converting between mixed numbers and improper fractions and basic operations with fractions and decimals.

Also, please make sure your son knows his math facts. If he does not know them automatically, please practice them with him this summer. While driving in the car, ask him random times table facts or to count up by a certain number. If he is using mental energy to recall these facts, it makes it harder for him to learn new material and make connections so it is important that they are mastered.

We hope you and your family enjoy these summer months, and we look forward to welcoming your son to Middle School!

Sincerely,

Tracy Nelson and Nick Romero

Name _____

Rising 6th Grade

Summer Math Packet – June Problems

Please show your work below.

ANSWERS

1. Simplify: $62 \times 25 =$

1. _____

2. Simplify: $23.8 \times 0.7 =$

2. _____

3. Write the place value for the underlined digit.

a. 19,250

3a. _____

b. 2,154,090.056

3b. _____

c. 32.5089

3c. _____

d. 2,007845

3d. _____

4. Find the greatest common factor of 24 and 80

4. _____

5. Simplify: $\frac{2}{5} + \frac{4}{15} =$

5. _____

6. Round the numbers below to the hundredths place.

a. 2.3647

6a. _____

b. 120.03924

6b. _____

c. 0.9931

6c. _____

d. 63.07523

6d. _____

7. Find the area of a rectangle that has a length of 4cm and a width of 9.2cm.

7. _____

8. Use the order of operations to simplify: $13 + 2 \times 4$

8. _____

9. Find the common denominator to write these in order from least to greatest:

$$\frac{3}{4}, \frac{7}{12}, \frac{5}{6}, \frac{2}{3}$$

9. _____

10. _____

10. Simplify: $2,928 \div 8 =$

11. Multiply using mental math:

a. 45×100

11a. _____

b. $7,041 \times 10$

11b. _____

c. $38 \times 10,000$

11c. _____

d. $6.2 \times 1,000$

11d. _____

12. Simplify the fractions below:

a. $\frac{12}{15}$

12a. _____

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

12b. _____

c. $\frac{44}{72}$

12c. _____

d. $\frac{60}{96}$

12d. _____

13. You bought 3 pounds of apples at \$2.39 per pound. How much change will you receive if you paid with a \$20 bill?

13. _____

14. Insert parentheses to make each statement true.

a. $45 \div 5 + 4 = 5$

14a. _____

b. $9 + 12 \div 3 - 1 = 15$

14b. _____

c. $1 + 6 \times 8 - 3 = 53$

14c. _____

15. Write an equivalent decimal to the following.

a. $\frac{3}{5}$

15a. _____

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

15b. _____

c. $\frac{47}{50}$

15c. _____

Name _____

Rising 6th Grade

Summer Math Packet – July Problems

Simplify.

1. $8,988 \div 42 =$

1. _____

2. $34.57 + 21.44 + 60.3 =$

2. _____

3. Write the place value for the underlined digit.

a. 412,185,250

a. _____

b. 31,005,235,398

b. _____

c. 0.116823

c. _____

d. 271.487

d. _____

4. Find the Greatest Common Factor of 18, 45 and 72.

4. _____

5. Simplify: $3\frac{1}{10} + 7\frac{2}{3} =$

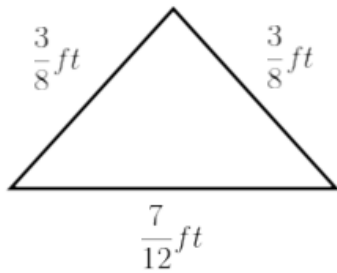
5. _____

6. Simplify: $\frac{9}{25} \times \frac{5}{18} =$

6. _____

7. Find the perimeter of the triangle below.

7. _____



8. Write the following percents as decimals:

a. 30%

8a. _____

b. 83%

8b. _____

c. 42.7%

8c. _____

d. 123%

8d. _____

9. Simplify using the order of operations:

$$32 - 50 \div 5 + 3^2$$

9. _____

10. Simplify the following:

a. $12 + (-5) =$

10a. _____

b. $(-40) + (-11) =$

10b. _____

c. $(-18) + 30 =$

10c. _____

11. Find the volume of a rectangular prism that has a length of 5 meters, width of 2.8 meters and a height of 6.2 meters.

11. _____

12. Divide using mental math:

a. $485 \div 100 =$

12a. _____

12b. _____

b. $39 \div 10 =$

12c. _____

c. $45,883 \div 100 =$

12d. _____

d. $14.2 \div 100 =$

13. Simplify the following:

a. $12 \times (-3) =$

13a. _____

b. $-11 \times (-7) =$

13b. _____

c. $(-7) \times 3 =$

13c. _____

14. A batch of cookies calls for $2\frac{2}{3}$ cups of flour. I want to make 4 batches of cookies, how much flour do I need?

14. _____

15. I bought a drink for \$2.29 and a sandwich. I paid a total of \$9.08 for my drink and sandwich. How much was the sandwich?

15. _____

Name _____

Rising 6th Grade

Summer Math Packet – August Problems

ANSWERS

1. Simplify: $12 \div \frac{8}{15} =$

1. _____

2. Simplify using the order of operations:

$$41 - 2^3 \times 5 + 11$$

2. _____

3. Simplify each fraction:

a. $\frac{14}{49}$

3a. _____

b. $\frac{48}{64}$

3b. _____

c. $\frac{24}{72}$

3c. _____

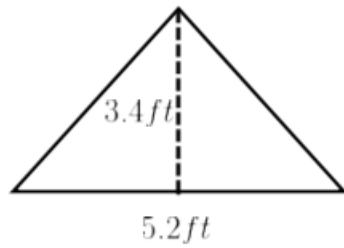
d. $\frac{27}{90}$

3d. _____

4. Find the Greatest Common Factor of 45, 75 and 105.

4. _____

5. To find the area of a triangle, multiply the base times the height and then divide by 2. Find the area of the triangle below.



5. _____

6. Change each mixed number to an improper fraction.

a. $2\frac{1}{8}$

6a. _____

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

6b. _____

c. $13\frac{2}{5}$

6c. _____

d. $19\frac{11}{20}$

6d. _____

7. Multiply or divide using mental math.

a. $24.58 \div 100$

7a. _____

b. $3.8 \times 1,000$

7b. _____

c. 0.024×100

7c. _____

d. $3.974 \div 1,000$

7d. _____

8. Simplify: $18 \times \frac{3}{8}$

8. _____

9. Write the following fractions as percents.

a. $\frac{81}{100}$

9a. _____

b. $\frac{13}{50}$

9b. _____

c. $\frac{2}{25}$

9c. _____

d. $\frac{17}{20}$

9d. _____

10. Multiply: $32.7 \times 0.83 =$

10. _____

11. Find the GCF and LCM of 45 and 30

11. _____

12. Change the following mixed numbers to improper fractions.

a. $4\frac{3}{5} =$

12a. _____

b. $7\frac{2}{9} =$

12b. _____

c. $11\frac{7}{8} =$

12c. _____

d. $16\frac{2}{3} =$

12d. _____

13. I bought some detergent for \$11.99, bananas for \$1.38, and chips for \$4.29. If I gave the cashier a \$20 bill, how much change did I receive?

13. _____

14. Divide: $\frac{21}{25} \div \frac{9}{10} =$

14. _____

15. To find the circumference of a circle, multiply π times the diameter. Find the circumference of a circle that has a diameter of 5.2 cm. Use 3.14 for π .

15. _____

Name Key

Rising 6th Grade

Summer Math Packet – June Problems

Please show your work below.

ANSWERS

1. Simplify: $62 \times 25 =$

$$\begin{array}{r} 62 \\ \times 25 \\ \hline 310 \\ + 1240 \\ \hline 1550 \end{array}$$

2. Simplify: $23.8 \times 0.7 =$

$$\begin{array}{r} 23.8 \\ \times 0.7 \\ \hline 16.66 \end{array}$$

1. 1,550

2. 16.66

3. Write the place value for the underlined digit.

a. 19,250

3a. thousands

b. 2,154,090.056

3b. hundred thousands

c. 32.5089

3c. thousandths

d. 2,007845

3d. tens

4. Find the greatest common factor of 24 and 80

$$\begin{array}{l|l} 2 & 24, 80 \\ 2 & 12, 40 \\ 2 & 6, 20 \\ & 3, 10 \end{array} \quad \begin{array}{l} 2 \times 2 \times 2 \\ = 8 \end{array}$$

4. 8

5. Simplify: $\frac{2\sqrt{3}}{5 \times 3} + \frac{4}{15} =$

$$\frac{6}{10} + \frac{4}{15} = \frac{10}{15} = \frac{2}{3}$$

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

6. Round the numbers below to the hundredths place.

a. 2.3647

6a. 2.36

b. 120.03924

6b. 120.04

c. 0.9931

6c. 0.99

d. 63.07523

6d. 63.08

7. Find the area of a rectangle that has a length of 4cm and a width of 9.2cm.

$$\begin{array}{r} 9.2 \\ \times 4 \\ \hline 36.8 \end{array}$$

7. 36.8 cm²

8. Use the order of operations to simplify: $13 + 2 \times 4$

$$\begin{array}{r} 13 + 2 \times 4 \\ \quad \quad \quad \underline{\quad \quad} \\ 13 + 8 \\ 21 \end{array}$$

8. 21

9. Find the common denominator to write these in order from least to greatest:

9. $\frac{7}{12}, \frac{2}{3}, \frac{3}{4}, \frac{5}{6}$

$$\frac{3}{4}, \frac{7}{12}, \frac{5}{6}, \frac{2}{3}$$

$$\frac{9}{12}, \frac{7}{12}, \frac{10}{12}, \frac{8}{12}$$

10. 366

10. Simplify: $2,928 \div 8 =$

$$\begin{array}{r} 366 \\ 8 \overline{) 2,928} \\ \underline{-24} \\ 52 \\ \underline{-48} \\ 48 \\ \underline{-48} \\ 0 \end{array}$$

11. Multiply using mental math:

a. 45×100

11a. 4,500

b. $7,041 \times 10$

11b. 70,410

c. $38 \times 10,000$

11c. 380,000

d. $6.2 \times 1,000$

11d. 6,200

12. Simplify the fractions below:

a. $\frac{12 \div 3}{15 \div 3}$

12a. $\frac{4}{5}$

b. $\frac{8 \div 2}{10 \div 2}$

12b. $\frac{4}{5}$

c. $\frac{44 \div 4}{72 \div 4}$

12c. $\frac{11}{18}$

d. $\frac{60 \div 12}{96 \div 12}$

12d. $\frac{5}{8}$

13. You bought 3 pounds of apples at \$2.39 per pound. How much change will you receive if you paid with a \$20 bill?

$$\begin{array}{r} \$2.39 \\ \times 3 \\ \hline \$7.17 \end{array} \quad \begin{array}{r} \$20.00 \\ - \$7.17 \\ \hline \$12.83 \end{array}$$

13. \$12.83

14. Insert parentheses to make each statement true.

a. $45 \div 5 + 4 = 5$

b. $9 + 12 \div 3 - 1 = 15$

c. $1 + 6 \times 8 - 3 = 53$

14a. $45 \div (5 + 4) = 5$

14b. $9 + 12 \div (3 - 1) = 15$

14c. $(1 + 6) \times 8 - 3 = 53$

15. Write an equivalent decimal to the following.

a. $\frac{3}{5} \times \frac{2}{2} = \frac{6}{10}$

b. $\frac{11}{20} \times \frac{5}{5} = \frac{55}{100}$

c. $\frac{47}{50} \times \frac{2}{2} = \frac{94}{100}$

15a. 0.6

15b. 0.55

15c. 0.94

Name Key

Rising 6th Grade

Summer Math Packet – July Problems

Simplify.

1. $8,988 \div 42 =$

$$\begin{array}{r} 214 \\ 42 \overline{) 8988} \\ \underline{-84} \\ 58 \\ \underline{-42} \\ 168 \\ \underline{168} \\ 0 \end{array}$$

1. 214

2. $34.57 + 21.44 + 60.3 =$

$$\begin{array}{r} 34.57 \\ 21.44 \\ + 60.30 \\ \hline 116.31 \end{array}$$

2. 116.31

3. Write the place value for the underlined digit.

a. 412,185,250

a. millions

b. 31,005,235,398

b. hundred millions

c. 0.116823

c. millionths

d. 271.487

d. hundredths

4. Find the Greatest Common Factor of 18, 45 and 72.

4. 9

$$\begin{array}{l} 3 \overline{) 18, 45, 72} \\ 3 \overline{) 6, 15, 24} \\ \hline 2, 5, 8 \end{array}$$

$$GCF = 3 \cdot 3 = 9$$

5. Simplify: $3\frac{1 \times 3}{10 \times 3} + 7\frac{2 \times 10}{3 \times 10} =$

$$3\frac{3}{30} + 7\frac{20}{30} = 10\frac{23}{30}$$

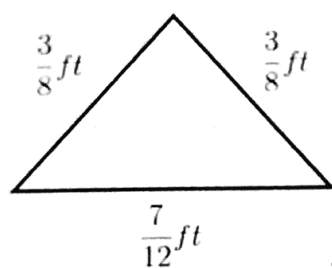
5. $10\frac{23}{30}$

6. Simplify: $\frac{9}{25} \times \frac{5}{18} =$

$$\frac{1 \cancel{9}}{5 \cancel{25}} \times \frac{\cancel{5} 1}{18 \cancel{2}} = \frac{1}{10}$$

6. $\frac{1}{10}$

7. Find the perimeter of the triangle below.



$$\begin{aligned} & \frac{3 \times 3}{8 \times 3} + \frac{3 \times 3}{8 \times 3} + \frac{7 \times 2}{12 \times 2} \\ &= \frac{9}{24} + \frac{9}{24} + \frac{14}{24} \\ &= \frac{32}{24} = 1\frac{8}{24} = 1\frac{1}{3} \end{aligned}$$

7. $1\frac{1}{3} \text{ ft}$

8. Write the following percents as decimals:

a. 30%

8a. 0.3

b. 83%

8b. 0.83

c. 42.7%

8c. 0.427

d. 123%

8d. 1.23

9. 31

10a. 7

10b. -51

10c. 12

11. 86.8 m^3

11. 86.8 m^3

11. 86.8 m^3

12a. 4.85

12b. 3.9

12c. 458.83

12d. 0.142

12d. 0.142

12d. 0.142

13. Simplify the following:

a. $12 \times (-3) =$

13a. -36

b. $-11 \times (-7) =$

13b. 77

c. $(-7) \times 3 =$

13c. -21

14. A batch of cookies calls for $2\frac{2}{3}$ cups of flour. I want to make 4 batches of cookies, how much flour do I need?

14. $10\frac{2}{3}$ cups

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

$$\frac{8}{3} \times \frac{4}{1} = \frac{32}{3} = 10\frac{2}{3}$$

15. I bought a drink for \$2.29 and a sandwich. I paid a total of \$9.08 for my drink and sandwich. How much was the sandwich?

15. \$6.79

$$\begin{array}{r} \$9.08 \\ - \$2.29 \\ \hline \$6.79 \end{array}$$

Name Key

Rising 6th Grade

Summer Math Packet – August Problems

ANSWERS

1. Simplify: $12 \div \frac{8}{15} =$

$$3\cancel{12} \times \frac{15}{8\cancel{2}} = \frac{45}{2} = 22\frac{1}{2}$$

1. $22\frac{1}{2}$

2. Simplify using the order of operations:

$$\begin{array}{r} 41 - 2^3 \times 5 + 11 \\ 41 - 8 \times 5 + 11 \\ 41 - 40 + 11 \\ 1 + 11 \end{array}$$

2. 12

3. Simplify each fraction:

a. $\frac{14}{49} \div \frac{7}{7}$

3a. $\frac{2}{7}$

b. $\frac{48}{64} \div \frac{16}{16}$

3b. $\frac{3}{4}$

c. $\frac{24}{72} \div \frac{24}{24}$

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

d. $\frac{27}{90} \div \frac{9}{9}$

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

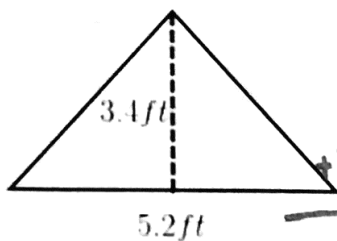
4. Find the Greatest Common Factor of 45, 75 and 105.

$$\begin{array}{r} 5 \overline{) 45, 75, 105} \\ 3 \overline{) 9, 15, 21} \\ 3, 5, 7 \end{array}$$

$$\text{GCF} = 5 \cdot 3 = 15$$

4. 15

5. To find the area of a triangle, multiply the base times the height and then divide by 2. Find the area of the triangle below.



$$\begin{array}{r} 3.4 \\ \times 5.2 \\ \hline 68 \\ + 1700 \\ \hline 17.68 \end{array}$$

5. 8.84 ft²

$$\begin{array}{r} 8.84 \\ 2 \overline{) 17.68} \\ \underline{-16} \\ 16 \\ \underline{-16} \\ 08 \end{array}$$

6. Change each mixed number to an improper fraction.

a. $2\frac{1}{8}$

6a. $\frac{17}{8}$

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

6b. $\frac{39}{5}$

c. $13\frac{2}{5}$

6c. $\frac{67}{5}$

d. $19\frac{11}{20}$

6d. $\frac{391}{20}$

7. Multiply or divide using mental math.

a. 24.58 $\div 100$

7a. 0.2458

b. 3.8 $\times 1,000$

7b. 3,800

c. 0.024 $\times 100$

7c. 2.4

d. 3.974 $\div 1,000$

7d. 0.003974

8. Simplify: $18 \times \frac{3}{8}$

$$9 \cancel{18} \times \frac{3}{\cancel{8}4} = \frac{27}{4} = 6\frac{3}{4}$$

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

9. Write the following fractions as percents.

a. $\frac{81}{100}$

9a. 81%

b. $\frac{13 \times 2}{50 \times 2} = \frac{26}{100}$

9b. 26%

c. $\frac{2 \times 4}{25 \times 4} = \frac{8}{100}$

9c. 8%

d. $\frac{17 \times 5}{20 \times 5} = \frac{85}{100}$

9d. 85%

10. Multiply: $32.7 \times 0.83 =$

$$\begin{array}{r} \overset{2}{3}2.\overset{3}{7} \\ \times 0.83 \\ \hline '981 \\ + 26160 \\ \hline 27.141 \end{array}$$

10. 27.141

11. Find the GCF and LCM of 45 and 30

GCF	5	45, 30
	3	9, 6
LCM	3	3, 2
	2	1, 2

11. $GCF = 15$
 $LCM = 90$

$$GCF = 5 \cdot 3 = 15$$

$$LCM = 5 \cdot 3 \cdot 3 \cdot 2 = 90$$

12. Change the following mixed numbers to improper fractions.

a. $4\frac{3}{5} =$

12a. $\frac{23}{5}$

b. $7\frac{2}{9} =$

12b. $\frac{65}{9}$

c. $11\frac{7}{8} =$

12c. $\frac{95}{8}$

d. $16\frac{2}{3} =$

12d. $\frac{50}{3}$

13. I bought some detergent for \$11.99, bananas for \$1.38, and chips for \$4.29. If I gave the cashier a \$20 bill, how much change did I receive?

$$\begin{array}{r} \$11.99 \\ \$1.38 \\ + \$4.29 \\ \hline \$17.66 \end{array}$$

$$\begin{array}{r} \$20.00 \\ - \$17.66 \\ \hline \$2.34 \end{array}$$

13. $\$2.34$

14. Divide: $\frac{21}{25} \div \frac{9}{10} =$

$$\frac{7}{5} \times \frac{10}{9} = \frac{14}{9}$$

14. $\frac{14}{15}$

15. To find the circumference of a circle, multiply π times the diameter. Find the circumference of a circle that has a diameter of 5.2 cm. Use 3.14 for π .

$$\begin{array}{r} 3.14 \\ \times 5.2 \\ \hline 628 \\ + 15700 \\ \hline 16.328 \end{array}$$

15. 16.328 cm