

Rising 6th Grade Summer Math 2023

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Welcome to 6th Grade Math!

This year, we will focus on the work of becoming mathematicians. Mathematicians look for patterns, persevere in solving difficult problems, construct reasonable arguments, and work together. To do these things, we need some tools. This packet will help you sharpen your tools to be prepared for 6th grade math. Be sure to scroll down, as many of the problems have more than one part. Please DO NOT use a calculator to solve these problems. If you are stumped, watch a video online (Math with Mr. J or Khan Academy) about the topic that is confusing you, but please do not search for the answer on the internet or ask someone else to do the work for you.

We suggest that you complete one or two sections each week to keep your skills sharp and to spread out the work. See you in the fall!

PART 1: Adding and Subtracting Fractions & Mixed Numbers

This section will focus on adding and subtracting fractions, converting between fractions and mixed numbers and other skills essential to your work with fractions.

3

If the rectangle below represents one whole, what fraction is the shaded region?

(a)



(b)

If the rectangle below represents one whole, what fraction is the shaded region?



5 Convert the fraction to a mixed number.

(a) $\frac{45}{10} = ?$

(A) $4\frac{1}{5}$

(B) $4\frac{1}{2}$

(C) $5\frac{4}{10}$

(D) $45\frac{1}{2}$

(b) Convert the fraction to a mixed number.

$\frac{8}{5} = ?$

(A) $8\frac{1}{5}$

(B) $5\frac{1}{8}$

(C) $1\frac{3}{5}$

(D) $\frac{5}{8}$

(c) Convert the fraction to a mixed number.

$\frac{26}{7} = ?$

(A) $2\frac{6}{7}$

(B) $3\frac{5}{7}$

(C) $7\frac{2}{6}$

(D) $6\frac{2}{7}$

(d) $\frac{4}{5} - \frac{1}{10}$

(e) $\frac{2}{3} - \frac{1}{5}$

8 Find the value of the expression.

$$2\frac{11}{12} - 1\frac{3}{8}$$

9 Add: $6\frac{2}{5} + 1\frac{1}{3}$

10 What is the value of $9\frac{2}{3} - 4\frac{1}{5}$?

- (A) $5\frac{1}{8}$
- (B) $5\frac{7}{8}$
- (C) $5\frac{5}{15}$
- (D) $5\frac{7}{15}$

11 Evaluate: $2\frac{1}{2} + \frac{7}{8} =$

16

An expression is shown.

$$\frac{3}{11} \times 12$$

What is the value of the expression? Enter the number in the box.

17

Simplify your answer.

$$9 \times \frac{5}{9} = \boxed{}$$

18

Each of 5 boys ate $\frac{2}{3}$ of a pizza. What is the total amount of pizza the boys ate?

- (A) $4\frac{1}{3}$ pizzas
- (B) 4 pizzas
- (C) $3\frac{1}{3}$ pizzas
- (D) 3 pizzas

19

Multiply: $3\frac{1}{2} \times 4\frac{2}{3}$

- (A) 4
- (B) $8\frac{1}{6}$
- (C) $12\frac{1}{3}$
- (D) $16\frac{1}{3}$

25

Divide:

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

26

$$3 \div \frac{1}{4} = \underline{\hspace{2cm}}$$

- (A) $\frac{4}{3}$
- (B) $\frac{3}{4}$
- (C) $\frac{12}{1} = 12$
- (D) $\frac{1}{12}$

27

Which of the following questions can be answered by finding

$$8 \div \frac{1}{5}?$$

- (A) Emily gives $\frac{1}{5}$ of a pie to 8 students. How many pies does she give each student?
- (B) Sam has $\frac{1}{5}$ of a pie to share equally among 8 students. How many pies does Sam share?
- (C) A teacher has 8 pies to share equally among 5 students. How many pies does each student get?
- (D) Josh has 8 pies and gives $\frac{1}{5}$ of a pie to each student. How many students get a piece of pie?

28

A teacher gives out 12 boxes of crayons for students to use for an art project.

Each student is given $\frac{1}{4}$ of a box of crayons.

How many students are given crayons?

students.

PART 4: Place Value and Multiplying by Tens

This section will focus on place value and multiplying by tens.

34 What is the result of the expression 77×10 ?

(A) 780

(B) 770

(C) 790

(D) 781

35 Multiply:

$100 \times 0.64 =$

36 Solve the expression below:

$84 \div 10 =$

37 Solve the following expression:

$881 \div 100 =$

a

88.1

8.81

0.881

38 How many times do you need to multiply 8.4646 by ten to get 8464.6?

Answer: times.

45 Find the product.

$$602 \times 53$$

- (A) 3,006
 - (B) 4,816
 - (C) 31,906
 - (D) 32,336
-

46 What is the value of the expression $1,732 \div 4$?

- (A) 408
 - (B) 433
 - (C) 476
 - (D) 483
-

47 Enter your answer in the box.

$$1,534 \div 26 =$$

48 Each ticket for a concert cost \$14. The total amount of ticket sales for the concert was \$8,792. How many tickets were sold?

- (A) 556
 - (B) 628
 - (C) 793
 - (D) 858
-

Decimal Operations

This section will focus on adding and subtracting decimals.

51 $4.71 + 13.26 =$

- (A) 17.97
- (B) 60.36
- (C) 0.6036
- (D) 0.1797

52 Ross bought a bag of carrots that weighed 8.6 pounds and a bag of strawberries that weighed 4.7 pounds.

How many pounds in all did Ross buy?

Answer: pounds

53 What is $235.48 - 12.7$?

Write your calculations on paper.

54 Clarke ran for 2.8 miles on Sunday, 2 miles on Monday and 3.7 miles on Tuesday. Total distance covered by Clarke is

 miles.

55 Multiply:

$0.8 \times 0.5 =$

56 Enter the product.

7.86×3