STM Summer Learning Packet

Students Entering Grade 7

The purpose of summer learning packets is to provide families with some guidance and structure for academic work over the summer months. Working on academic tasks over the summer will help students practice and reinforce essential skills, working to lessen the "summer slide" – or regression in skills – that is often seen when students disengage from all academic work for an extended period of time. This packet provides directions for the summer reading and math assignments.

READING

Each student entering 7th grade is assigned to read two novels and one nonfiction article over the course of the summer. One novel is a required title for all – The Lion, the Witch and the Wardrobe by C.S. Lewis – and the other readings are student choices. The chosen novel should be at an appropriate reading level for each individual student. Written assignments for each are also outlined below:

Reading Assignments:

1. The Lion, the Witch and the Wardrobe by C.S. Lewis
    a. Read and complete the attached book report.
2. Novel of student choice
    a. Read and complete the attached book report.
3. Nonfiction article (newspaper, magazine, or online news source). This must be in the field of science or social studies (topics on the environment, economics, political or civic issues, technology... not entertainment or sports news).
    a. Complete a two-paragraph report for this article. Paragraph one should be a summary of the article's information. Paragraph two should be your perspective on the issue (your opinion, further questions you have, etc.)

MATH

1. Math Skills Packet: Students entering 7th grade are assigned the attached packet of worksheets. Show all work and mathematical steps (can be done on a separate sheet of paper or on the handout if space allows). Check your work for accuracy with the given answer key.
2. Optional: Additionally, students can pursue additional skill building through online resources such as Khan Academy or others.

Summer learning assignments for both reading and math will be collected during the first week of school in the fall.

My Book Report

Name_____ Date_____

Book Title_____ No. of Pages_____

Author_____ Genre_____

Publisher_____

Names of Main Characters

_____

Where does the story take place?_____

_____

When does the story take place?_____

Character Study

Choose one main character to describe. (Use complete sentences)

Name of Character_____

1. Physical Likeness (What does the character look like?)

_____

_____

_____

_____

2. Personality (What kind of person is the character?)

_____

_____

_____

_____

3. Desire (What does he/she want?)

_____

_____

_____

_____

4. Accomplishment (How does he/she get what he/she wants? Or what keeps he/she from getting it?)

_____

_____

_____

_____

5. How does the main character change?

Vocabulary

As you read, find three words that you don't understand, or are difficult. Look them up and give the following information.

1. Word_____ Page Number_____

   Definition_____

   Your own sentence:

2. Word_____ Page Number_____

   Definition_____

   Your own sentence:

3. Word_____ Page Number_____

   Definition_____

   Your own sentence:

Your Opinion Did you like the book?_____

Why or why not?_____

Tell an interesting fact or lesson you learned from this story._____

My Book Report

Name_____ Date_____

Book Title_____ No. of Pages_____

Author_____ Genre_____

Publisher_____

Names of Main Characters

_____

Where does the story take place?_____

_____

When does the story take place?_____

Character Study

Choose one main character to describe. (Use complete sentences)

Name of Character_____

1. Physical Likeness (What does the character look like?)

_____

_____

_____

_____

2. Personality (What kind of person is the character?)

_____

_____

_____

_____

3. Desire (What does he/she want?)

_____

_____

_____

_____

4. Accomplishment (How does he/she get what he/she wants? Or what keeps he/she from getting it?)

_____

_____

_____

_____

5. How does the main character change?

Vocabulary

As you read, find three words that you don't understand, or are difficult. Look them up and give the following information.

1. Word_____ Page Number_____

   Definition_____

   Your own sentence:

2. Word_____ Page Number_____

   Definition_____

   Your own sentence:

3. Word_____ Page Number_____

   Definition_____

   Your own sentence:

Your Opinion Did you like the book?_____

Why or why not?_____

Tell an interesting fact or lesson you learned from this story._____

Name _____ Date _____ Class _____

SKILL 7

Are You Ready?

Exponents

Using an exponent is a shorthand way of writing out the multiplication of the same number one or more times.

Understanding Exponents	Writing Exponents	Reading Exponents
An exponent tells how many times a base number (or variable) is used as a factor.	The base is written as a standard number (or variable). The exponent is written as a superscript.	The product of repeated factors is called a power. Read 6^5 as "6 raised to the fifth power" or the "fifth power of 6."
Example: In the expression 4^3, the base, 4, is a factor 3 times or $4 \cdot 4 \cdot 4$.	Examples: $6 \cdot 6 \cdot 6 \cdot 6 \cdot 6 = 6^5$ $g \cdot g \cdot g \cdot g = g^4$ $(-5) \cdot (-5) \cdot (-5) = (-5)^3$	Special cases: The second and third powers of numbers have special names: 7^2 can be read as "7 squared" and 9^3 can be read as "9 cubed."

Practice on Your Own

Write each expression as a multiplication of factors.

1. 9^4 _____
2. 1^5 _____
3. x^3 _____
4. 8^2 _____
5. $(-2)^3$ _____
6. p^6 _____

Write each expression using a base and an exponent.

7. $10 \cdot 10 \cdot 10 \cdot 10 \cdot 10 \cdot 10$ _____
8. $12 \cdot 12 \cdot 12 \cdot 12$ _____
9. $m \cdot m \cdot m \cdot m \cdot m$ _____
10. five raised to the sixth power _____
11. nine squared _____
12. p cubed _____

Check

Write each expression as a multiplication of factors.

13. 2^4 _____
14. $(-4)^2$ _____
15. h^5 _____

Write each expression using a base and an exponent.

16. $25 \cdot 25 \cdot 25$ _____
17. $s \cdot s \cdot s \cdot s$ _____
18. eight cubed _____
19. four raised to the first power _____

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Name _____ Date _____ Class _____

SKILL 11

Are You Ready?

Fractions and Decimals

Division Notation: $2 \div 3$ $3\overline{)2}$ $\frac{2}{3}$

Vocabulary: $\frac{2}{3}$ → Numerator, $\frac{2}{3}$ → Denominator; Quotient, Divisor$\overline{)}$Dividend

Example: Write $\frac{4}{5}$ as a decimal.

Step 1: Write the fraction as a division problem. The numerator is the dividend and the denominator is the divisor. → $5\overline{)4}$

Step 2: Add a decimal point followed by a 0 in the dividend and another decimal point in the quotient. → $5\overline{)4.0}$

Step 3: Follow whole number division rules until you have a remainder of 0 or until you have the number of decimal places you need. Adding additional zeros may be necessary. →

$$5\overline{)4.0}\quad \begin{array}{r} 0.8 \\ 40 \\ \hline 0 \end{array}$$

So, $\frac{4}{5} = 0.8$

Note: If the number is a mixed number, ignore the whole number portion until you are ready to write your answer.

$3\frac{4}{5} = 3.8$

Practice on Your Own

Write each fraction or mixed number as a decimal.

1. $\frac{3}{5}$ _____
2. $\frac{5}{8}$ _____
3. $2\frac{1}{4}$ _____
4. $\frac{12}{15}$ _____
5. $-\frac{9}{10}$ _____
6. $\frac{12}{8}$ _____
7. $\frac{23}{10}$ _____
8. $-3\frac{1}{5}$ _____

Check

Write each fraction or mixed number as a decimal.

9. $\frac{7}{10}$ _____
10. $-\frac{11}{8}$ _____
11. $6\frac{3}{20}$ _____
12. $\frac{2}{25}$ _____
13. $\frac{7}{8}$ _____
14. $\frac{11}{2}$ _____
15. $-\frac{4}{5}$ _____
16. $\frac{24}{100}$ _____

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SKILL 13

Are You Ready?

Rates and Unit Rates

Rate	Unit Rate
Definition: A rate is a ratio that compares two quantities that have different units of measure.	Definition: A unit rate is a rate in which the second term is 1.
Example 1: $3.60 per dozen oranges Example 2: traveling 100 miles in 2 hours	Example 1: 30¢ per orange Example 2: traveling 50 miles per hour

How to write a rate as a unit rate:
Step 1: Divide the first term of the rate by the second term of the rate.
Step 2: Rewrite the rate as a quantity per unit of time or per item.

Example: Write "120 students for every 4 buses" as a unit rate.
Step 1: $120 \div 4 = 30$
Step 2: Rewrite the rate as "30 students per bus" or 30 students/bus.

Note: When unit rates involve money, they are also referred to as unit prices.

Practice on Your Own
Find each unit rate.

1. 348 miles in 6 hours _____
2. 520 calories in 2 servings _____
3. $10 for 4 hours _____
4. 200 homes in 4 subdivisions _____
5. 80 miles for 8 gallons of gas _____
6. $3.75 for 5 pens _____
7. 18 grams of fat in 4 ounces _____
8. 150 francs in 25 dollars _____
9. $5.75 for 100 copies _____

Check
Find each unit rate.

10. 6000 trees in 20 acres _____
11. $180 for 4 credit hours _____
12. 5 km in 20 minutes _____
13. 960 miles in 12 hours _____
14. 96 books on 6 shelves _____
15. $4.00 for 5 rides _____

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Name _____ Date _____ Class _____

SKILL 14

Are You Ready?

Fractions, Decimals, and Percents

Writing Decimal Form		
From a fraction	Divide the numerator by the denominator.	Example: $\frac{1}{4} = 1 \div 4 = 0.25$
From a percent	Drop the % symbol and place a decimal after the last digit. Move the decimal 2 places to the left.	Example: $25\% = 2\underset{\leftarrow}{5.} = 0.25$

Writing Percent Form		
From a decimal	Move the decimal 2 places to the right and add the % symbol.	Example: $0.225 = 0.\underset{\rightarrow}{22}5 = 22.5\%$
From a fraction	First write as a decimal by dividing. Then move the decimal 2 places to the right and add the % symbol.	Example: $\frac{1}{5} = 1 \div 5 = 0.\underset{\rightarrow}{20} = 20\%$

Practice on Your Own

Write the equivalent decimal.

1. $\frac{1}{2}$ _____ 2. 28% _____ 3. $\frac{7}{10}$ _____ 4. 84% _____

5. $\frac{17}{20}$ _____ 6. 6% _____ 7. $\frac{3}{8}$ _____ 8. 150% _____

Write the equivalent percent.

9. $\frac{3}{4}$ _____ 10. 0.6 _____ 11. $\frac{3}{10}$ _____ 12. 0.09 _____

13. $\frac{5}{8}$ _____ 14. 0.45 _____ 15. $\frac{6}{5}$ _____ 16. 1.25 _____

Check

Write the equivalent decimal.

17. 97% _____ 18. $\frac{4}{5}$ _____ 19. 2.5% _____ 20. $\frac{11}{100}$ _____

Write the equivalent percent.

21. 0.8 _____ 22. $\frac{2}{5}$ _____ 23. 0.055 _____ 24. $\frac{31}{50}$ _____

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LESSON 15

Are You Ready?

Scientific Notation

Definition: A number is in scientific notation if it is written as the product of a number between 1 and 10 and a power of 10 ($a \times 10^n$).
Examples: 6×10^7 and 4.99×10^{-15}

To write from standard form to scientific notation

Step 1: Make sure the number has a decimal point. If it doesn't, place a decimal after the last digit in the number: 47,000,000 = 47, 000,000.

Step 2: Move the decimal point until the number is between 1 and 10.

Step 3: Count the number of places you moved the decimal point—this will be your exponent of 10. If the original number was a very large number, the exponent will be positive; if the number was a very small number, the exponent will be negative.

To write from scientific notation to standard form

Case 1: If the exponent of 10 is positive, move the decimal point to the right as many times as the value of the exponent. Fill in zeros as needed and drop the power of 10.

Case 2: If the exponent of 10 is negative, move the decimal point to the left as many times as the value of the exponent. Fill in zeros as needed and drop the power of 10.

Example: Write 46,000,000 in scientific notation. $4.6\,0\,0\,0\,0\,0\,0\,. = 4.6 \times 10^7$

Practice on Your Own

Write in scientific notation.

1. 5,400,000,000 _____
2. 0.00026 _____
3. 6 million _____
4. 0.00000000859 _____
5. $112\frac{3}{4}$ _____
6. $\frac{61}{100,000}$ _____

Write in standard notation.

7. 4.22×10^6 _____
8. 7.1×10^{-4} _____
9. 9×10^3 _____
10. 1.365×10^{-9} _____
11. 6.84×10^8 _____
12. 2×10^{-12} _____

Check

Write in scientific notation.

13. 0.00000000000012 _____
14. 62,500,000,000 _____
15. $206\frac{12}{25}$ _____

Write in standard notation.

16. 4.1×10^2 _____
17. 2.08×10^{-10} _____
18. 1.001×10^6 _____

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SKILL 19

Are You Ready?

Choose an Appropriate Measure

Choosing an appropriate measure depends on the object being measured and what makes sense for that object.

Most Common Units of Measure		
Length	**Weight (Mass)**	**Capacity**
inches (in.) feet (ft) yards (yd) miles (mi) centimeters (cm) meters (m) kilometers (km)	ounces (oz) pounds (lb) tons (T) grams (g) kilograms (kg)	fluid ounces (fl oz) cups (c) pints (pt) quarts (qt) gallons (gal) liters (L)

Example: What measure would you use to weigh an automobile?

Answer: Ounces and pounds do not make sense, because they are much too small. An automobile most likely weighs one to two tons, so tons is the better measure.

Practice on Your Own

For each object, circle the better measurement.

1. length of a football field: 100 ft or 100 yd
2. length of a sofa: 6 ft or 6 yd
3. height of a coffee table: 1.5 ft or 5 yd
4. mass of an ant: 0.1 g or 0.1 lb
5. airplane speed: 3000 mph or 300 mph
6. height of a 6-year old: 5 ft or 2.5 ft
7. diameter of a car tire: 3 ft or 15 in.
8. capacity of a teacup: 8 oz or 1 gal

Check

For each object, circle the better measurement.

9. height of a paperback book: 1 ft or 6 in.
10. length of a tropical fish: 6 ft or 6 in.
11. diameter of a dinner plate: 25 cm or 1 m
12. height of a cow: 5 ft or 5 yd
13. diameter of a wedding ring: 2 cm or 1 m
14. weight of a TV set: 30 lbs or 30 oz
15. capacity of a water tower: 50,000 gal or 50,000 pt
16. distance of a marathon: 26 mi or 2600 yd

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Name _____ Date _____ Class _____

SKILL 44

Are You Ready?

Add and Subtract Decimals

General Operation Reminders	
Addition	**Subtraction**
Rewrite the problem vertically, align the decimals, fill in zeros if necessary, and don't forget to regroup and "rename" when needed.	Rewrite the problem vertically, align the decimals, fill in zeros if necessary, and don't forget to regroup and "rename" when needed.
Example: Add 42.62 + 9.7 1 1 42.62 + 9.70 52.32	Example: Subtract 19 − 7.2 8 10 19.0 − 7.2 11.8

Practice on Your Own

Add or subtract.

1. 4.6 + 2.8 _____

2. 43.60 − 29.57 _____

3. 15.62 + 0.88 _____

4. 1.82 − 0.95 _____

5. 9.5 + 4.13 _____

6. 1.24 − 0.66 _____

7. 92.5 + 16.5 _____

8. 11 − 8.43 _____

Check

Add or subtract.

9. 2.79 + 7.42 _____

10. 23.0 − 8.5 _____

11. 50.34 + 37.80 _____

12. 1.60 − 0.99 _____

13. 8.7 + 12.23 _____

14. 13 − 8.49 _____

15. 68.48 − 67.86 _____

16. 43.47 + 28.53 _____

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Name _____ Date _____ Class _____

SKILL 45

Are You Ready?

Multiply Decimals

General Operation Reminders	
Multiplying Decimals	**Multiplying by Powers of 10**
Step 1: Rewrite the problem vertically. Step 2: Multiply the numbers just as you would multiply whole numbers. Step 3: Count the total number of decimal places in the two factors. Step 4: The product must have the same number of decimal places as the total found in Step 3. You may need to add zeros as placeholders.	Step 1: Count the number of zeros in the power of 10. Step 2: Move the decimal point in the other factor to the right the same number of places as the number you counted in Step 1.
Example 1: Multiply 9.27×0.6. Total of 3 decimal places → 9.27 × 0.6 = 5.562 ← Also needs 3 decimal places	Example 2: Multiply 0.735×100. There are two zeros in the power of 10, so move the decimal point in 0.735 two places to the right and drop the zero. $0.735 \rightarrow 73.5$

Practice on Your Own

Multiply.

1. 0.5×0.9 _____

2. 4.2×0.3 _____

3. 1.3×1.3 _____

4. 7.3×0.25 _____

5. 0.4×5.62 _____

6. 2.5×0.065 _____

7. 5.62×10 _____

8. 0.493×100 _____

Check

Multiply.

9. 0.2×0.7 _____

10. 7.9×0.5 _____

11. 2.2×2.2 _____

12. 0.36×6.1 _____

13. 3.5×0.071 _____

14. 96×0.1 _____

15. 4622×100 _____

16. 0.09×10 _____

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SKILL 46

Are You Ready?

Divide Decimals

General Operation Reminders
Dividing Decimals
Step 1: Rewrite the problem using a "division box." Step 2: If the divisor is not a whole number, change it to a whole number by moving the decimal point to the right. Step 3: Move the decimal point in the dividend to the right the same number of places as you moved it in Step 2. Step 4: Place a decimal point in the quotient directly above the decimal point in the dividend. Step 5: Divide the numbers just as you would divide whole numbers.
Example 1: Divide 7.68 ÷ 0.8. $0.8\overline{)7.68} \longrightarrow 8\overline{)76.8} \longrightarrow \begin{array}{r} 9.6 \\ 8\overline{)76.8} \\ -72 \\ \hline 48 \\ -48 \\ \hline 0 \end{array}$ The quotient is 9.6.

Practice on Your Own

Divide.

1. 11.2 ÷ 7 _____

2. 8.12 ÷ 4 _____

3. 4.96 ÷ 2 _____

4. 0.85 ÷ 5 _____

5. 7.8 ÷ 0.2 _____

6. 4.32 ÷ 0.6 _____

7. 18.75 ÷ 0.5 _____

8. 0.508 ÷ 0.4 _____

Check

Divide.

9. 22.5 ÷ 9 _____

10. 6.64 ÷ 4 _____

11. 7.47 ÷ 3 _____

12. 0.58 ÷ 2 _____

13. 16.8 ÷ 0.8 _____

14. 4.59 ÷ 0.9 _____

15. 11.2 ÷ 0.7 _____

16. 0.528 ÷ 0.6 _____

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Name _____ Date _____ Class _____

SKILL 47

Are You Ready?

Multiply and Divide Fractions

General Operation Reminders	
Multiplying Fractions	**Dividing Fractions**
Step 1: Multiply the numerators. Multiply the denominators. Step 2: Write the answer in simplest form. Divide by the greatest common factor if needed.	Step 1: Find the reciprocal of the divisor (the second fraction) and rewrite the problem as a multiplication problem. Step 2: Multiply the numerators. Multiply the denominators. Step 3: Write the answer in simplest form. Divide by the greatest common factor if needed.
Example 1: Multiply $\frac{2}{5} \times \frac{3}{4}$. $\frac{2}{5} \times \frac{3}{4} = \frac{2 \times 3}{5 \times 4} = \frac{6}{20}$ GCF of 6 and 20 is 2. $\frac{6}{20} = \frac{6 \div 2}{20 \div 2} = \frac{3}{10}$. The product is $\frac{3}{10}$.	Example 2: Divide $\frac{1}{6} \div \frac{3}{4}$. $\frac{1}{6} \div \frac{3}{4} = \frac{1}{6} \times \frac{4}{3} = \frac{4}{18}$ GCF of 4 and 18 is 2. $\frac{4}{18} = \frac{4 \div 2}{18 \div 2} = \frac{2}{9}$. The product is $\frac{2}{9}$.

Practice on Your Own

Multiply or divide. Give your answer in simplest form.

1. $\frac{4}{5} \times \frac{1}{3}$ _____
2. $\frac{3}{4} \div \frac{1}{4}$ _____
3. $\frac{2}{9} \times \frac{1}{2}$ _____
4. $\frac{3}{5} \div \frac{2}{5}$ _____
5. $\frac{4}{7} \times \frac{1}{4}$ _____
6. $\frac{4}{11} \div 4$ _____
7. $\frac{9}{10} \times 5$ _____
8. $8 \div \frac{4}{3}$ _____

Check

Multiply or divide. Give your answer in simplest form.

9. $\frac{1}{9} \times \frac{1}{2}$ _____
10. $\frac{2}{5} \div \frac{3}{5}$ _____
11. $\frac{5}{8} \times \frac{4}{7}$ _____
12. $\frac{9}{11} \div \frac{1}{11}$ _____
13. $\frac{7}{12} \times \frac{1}{7}$ _____
14. $\frac{6}{7} \div 6$ _____
15. $\frac{3}{4} \times 2$ _____
16. $12 \div \frac{4}{5}$ _____

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Name _____ Date _____ Class _____

SKILL 48

Are You Ready?

Add and Subtract Fractions

General Operation Reminders	
Adding and Subtracting Fractions	
Like Fractions (same denominators)	Unlike Fractions (different denominators)
Step 1: Add or subtract the numerators. Step 2: Write the sum or difference of the numerators over the denominator. Step 3: Write the answer in simplest form.	Step 1: Find the least common denominator (LCD) and then rewrite each fraction so that its denominator is the LCD. Step 2: Follow the steps for adding or subtracting like fractions.
Example 1: Add $\frac{1}{8} + \frac{5}{8}$. $\frac{1}{8} + \frac{5}{8} = \frac{1+5}{8} = \frac{6}{8}$ (GCF of 6 and 8 is 2.) $\frac{6}{8} = \frac{6 \div 2}{8 \div 2} = \frac{3}{4}$ The sum is $\frac{3}{4}$.	Example 2: Subtract $1\frac{1}{2} - \frac{3}{4}$. Rewrite $1\frac{1}{2}$ as $\frac{3}{2}$. The LCD of 2 and 4 is 4. $\frac{3}{2} \times \frac{2}{2} = \frac{6}{4}$ $\frac{6}{4} - \frac{3}{4} = \frac{3}{4}$ The difference is $\frac{3}{4}$.

Practice on Your Own

Add or subtract. Give your answer in simplest form.

1. $\frac{2}{5} + \frac{1}{5}$ _____
2. $\frac{5}{7} - \frac{2}{7}$ _____
3. $\frac{2}{5} + \frac{1}{10}$ _____
4. $\frac{4}{9} - \frac{1}{3}$ _____
5. $1\frac{5}{9} - \frac{2}{9}$ _____
6. $\frac{7}{8} + \frac{3}{4}$ _____
7. $1\frac{2}{3} - \frac{5}{6}$ _____
8. $\frac{2}{3} + \frac{1}{6} + \frac{5}{12}$ _____

Check

Add or subtract. Give your answer in simplest form.

9. $\frac{6}{11} + \frac{3}{11}$ _____
10. $\frac{8}{9} - \frac{2}{9}$ _____
11. $\frac{3}{14} + \frac{1}{7}$ _____
12. $\frac{7}{12} - \frac{1}{4}$ _____
13. $1\frac{7}{8} - \frac{3}{8}$ _____
14. $\frac{7}{10} + \frac{3}{5}$ _____
15. $1\frac{1}{8} - \frac{3}{4}$ _____
16. $\frac{1}{5} + \frac{4}{15} + \frac{3}{10}$ _____

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Name _____ Date _____ Class _____

SKILL 55

Are You Ready?

Order of Operations

The Correct Order of Operations			
1. **P**arentheses	2. **E**xponents	3. **M**ultiply / **D**ivide (left to right)	4. **A**dd / **S**ubtract (left to right)
One way to remember the correct order: **P**lease **e**xcuse **m**y **d**ear **A**unt **S**ally.			

Example 1

Evaluate $8 - 2 \cdot 3$.

$8 - 6$

(2)

Example 2

Evaluate $(6 + 4)^2 \div 5$.

$10^2 \div 5$

$100 \div 5$

(20)

Example 3

Evaluate $2^3 + 4 \cdot 3 - 6$.

$8 + 4 \cdot 3 - 6$

$8 + 12 - 6$

$20 - 6$

(14)

Practice on Your Own

Evaluate each expression.

1. $(5 + 1) - 3$ _____

2. $8 \cdot 8 \div 16$ _____

3. $6 \cdot 5 + 1$ _____

4. $24 \div 3 - 5$ _____

5. $(8 + 10) \div 3$ _____

6. $20 + 1 - 7$ _____

7. $7^2 + 1$ _____

8. $72 \div 2^3$ _____

9. $21 + 15 \div 3$ _____

10. $8 + 7 \cdot 5$ _____

11. $3 \cdot 6 - 2 \cdot 9$ _____

12. $(4 + 2)^2 \div 9$ _____

Check

Find the absolute value of each expression.

13. $(6 + 10) \div 4$ _____

14. $40 - 4 \cdot 10$ _____

15. $5 \cdot 10 \div 2$ _____

16. $15 - 3 + 10$ _____

17. $4 \cdot 8 \div 4^2$ _____

18. $8 \cdot 5 + 3 \cdot 6$ _____

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Summer Math Packet – Answer Key

Students entering 7th Grade

SKILL 7 ANSWERS:

Practice on Your Own

1. $9 \cdot 9 \cdot 9 \cdot 9$
2. $1 \cdot 1 \cdot 1 \cdot 1 \cdot 1$
3. $x \cdot x \cdot x$
4. $8 \cdot 8$
5. $(-2) \cdot (-2) \cdot (-2)$
6. $p \cdot p \cdot p \cdot p \cdot p \cdot p$
7. 10^6
8. 12^4
9. m^5
10. 5^6
11. 9^2
12. p^3

Check

13. $2 \cdot 2 \cdot 2 \cdot 2$
14. $(-4) \cdot (-4)$
15. $h \cdot h \cdot h \cdot h \cdot h$
16. 25^3
17. s^4
18. 8^3
19. 4^1 or 4

SKILL 11 ANSWERS:

Practice on Your Own

1. 0.6
2. 0.625
3. 2.25
4. 0.8
5. −0.9
6. 1.5
7. 2.3
8. −3.2

Check

9. 0.7
10. −1.375
11. 6.15
12. 0.08
13. 0.875
14. 5.5
15. −0.8
16. 0.24

SKILL 13 ANSWERS:

Practice on Your Own

1. 58 miles per hour
2. 260 calories per serving
3. $2.50 per hour
4. 50 homes per subdivision
5. 10 miles per gallon
6. 75¢ per pen
7. 4.5 grams per ounce
8. 6 francs per dollar
9. 5.75¢ per copy

Check

10. 300 trees per acre
11. $45 per credit hour
12. 0.25 km per minute
13. 80 miles per hour
14. 16 books per shelf
15. 80¢ per ride

SKILL 14 ANSWERS:

Practice on Your Own

1. 0.5
2. 0.28
3. 0.7
4. 0.84
5. 0.85
6. 0.06
7. 0.375
8. 1.5
9. 75%
10. 60%
11. 30%
12. 9%
13. 62.5%
14. 45%
15. 120%
16. 125%

Check

17. 0.97
18. 0.8
19. 0.025
20. 0.11
21. 80%
22. 40%
23. 5.5%
24. 62%

SKILL 15 ANSWERS:

Practice on Your Own

1. 5.4×10^9
2. 2.6×10^{-4}
3. 6×10^6
4. 8.59×10^{-9}
5. 1.1275×10^2
6. 6.1×10^{-4}
7. 4,220,000
8. 0.00071
9. 9000
10. 0.000000001365
11. 684,000,000
12. 0.000000000002

Check

13. 1.2×10^{-13}
14. 6.25×10^{10}
15. 2.0648×10^2
16. 410
17. 0.000000000208
18. 1,001,000

SKILL 19 ANSWERS:

Practice on Your Own

1. 100 yd
2. 6 ft
3. 1.5 ft
4. $\frac{1}{10}$ gram
5. 300 mph
6. 2.5 ft
7. 15 in.
8. 8 oz

Check

9. 6 in.
10. 6 in.
11. 25 cm
12. 5 ft
13. 2 cm
14. 30 lbs
15. 50,000 gal
16. 26 mi

Summer Math Packet – Answer Key

Students entering 7th Grade

SKILL 44 ANSWERS:

Practice on Your Own

1. 7.4
2. 14.03
3. 16.5
4. 0.87
5. 13.63
6. 0.58
7. 109
8. 2.57

Check

9. 10.21
10. 14.5
11. 88.14
12. 0.61
13. 20.93
14. 4.51
15. 0.62
16. 72

SKILL 45 ANSWERS:

Practice on Your Own

1. 0.45
2. 1.26
3. 1.69
4. 1.825
5. 2.248
6. 0.1625
7. 56.2
8. 49.3

Check

9. 0.14
10. 3.95
11. 4.84
12. 2.196
13. 0.2485
14. 9.6
15. 462,200
16. 0.9

SKILL 46 ANSWERS:

Practice on Your Own

1. 1.6
2. 2.03
3. 2.48
4. 0.17
5. 39
6. 7.2
7. 37.5
8. 1.27

Check

9. 2.5
10. 1.66
11. 2.49
12. 0.29
13. 21
14. 5.1
15. 16
16. 0.88

SKILL 47 ANSWERS:

Practice on Your Own

1. $\frac{4}{15}$
2. 3
3. $\frac{1}{9}$
4. $1\frac{1}{2}$
5. $\frac{1}{7}$
6. $\frac{1}{11}$
7. $4\frac{1}{2}$
8. 6

Check

9. $\frac{1}{18}$
10. $\frac{2}{3}$
11. $\frac{5}{14}$
12. 9
13. $\frac{1}{12}$
14. $\frac{1}{7}$
15. $1\frac{1}{2}$
16. 15

SKILL 48 ANSWERS:

Practice on Your Own

1. $\frac{3}{5}$
2. $\frac{3}{7}$
3. $\frac{1}{2}$
4. $\frac{1}{9}$
5. $1\frac{1}{3}$
6. $1\frac{5}{8}$
7. $\frac{5}{6}$
8. $1\frac{1}{4}$

Check

9. $\frac{9}{11}$
10. $\frac{2}{3}$
11. $\frac{5}{14}$
12. $\frac{1}{3}$
13. $1\frac{1}{2}$
14. $1\frac{3}{10}$
15. $\frac{3}{8}$
16. $\frac{23}{30}$

SKILL 55 ANSWERS:

Practice on Your Own

1. 3
2. 4
3. 31
4. 3
5. 6
6. 14
7. 50
8. 9
9. 26
10. 43
11. 0
12. 4

Check

13. 4
14. 0
15. 25
16. 22
17. 2
18. 58