

STM Summer Learning Packet
Summer 2023

Students Entering Grade 8th

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 8th grade is assigned to read two novels and three nonfiction articles over the course of the summer. The chosen novels should be at an appropriate reading level for each individual student. Written assignments for each reading task are outlined below:

Reading Assignments:

1. TWO novels of student choice
 - a. Read and complete the attached book reports.
 2. Three nonfiction articles (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 each 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.)
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MATH

1. Math Skills Packet: Students entering 8th 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.
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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. _____

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Your own sentence:

Your Opinion Did you like the book? _____

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

SKILL

Are You Ready?**7****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 _____

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: $25\% = \underbrace{25}_{\leftarrow} = 0.25$

Writing Percent Form		
From a decimal	Move the decimal 2 places to the right and add the % symbol.	Example: $0.225 = \underbrace{0.225}_{\rightarrow} = 22.5\%$
From a fraction	First write as a decimal by dividing. Then move the decimal 2 places to the right and add the % symbol.	Example: $\frac{1}{5} = 1 \div 5 = \underbrace{0.20}_{\rightarrow} = 20\%$

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. $\frac{31}{50}$ _____

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.)		fluid ounces (fl oz)
feet (ft)	ounces (oz)	cups (c)
yards (yd)	pounds (lb)	pints (pt)
miles (mi)	tons (T)	quarts (qt)
centimeters (cm)	grams (g)	gallons (gal)
meters (m)	kilograms (kg)	liters (L)
kilometers (km)		

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.

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

Check

For each object, circle the better measurement.

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

SKILL
47 **Are You Ready?**
Multiply and Divide Fractions

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

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. $12 \div \frac{4}{5}$ |
| _____ | _____ | _____ | _____ |

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. $\frac{1}{5} + \frac{4}{15} + \frac{3}{10}$

SKILL
49 **Are You Ready?**
Percent Problems

Multiplying by percents:

Step 1: Change the percent to a decimal by dropping the % symbol and moving the decimal point two places to the left.

Step 2: Multiply using rules for decimal multiplication.

Translating a percent problem into an equation:

Rewrite the percent as a decimal and then use the translations at the right to rewrite the problem as an equation.

Word	Mathematical Translation
what	an unknown quantity, such as n or x
is	equals or =
of	multiplication or \cdot or \times or $()$

Example: What is 30% of 90?

$$\begin{array}{ccccccc} \downarrow & \downarrow & \downarrow & \downarrow & \downarrow & & \\ n & = & 0.30 & \times & 90 & & \end{array}$$

$$n = 27$$

Practice on Your Own
Multiply.

1. 0.25×72

2. 0.15×60

3. 0.20×1400

4. 0.06×500

Answer each question.

5. What is 12% of 50? _____

6. What is 70% of 30? _____

7. What is 22% of 150? _____

8. What is 10% of 450? _____

9. What is 50% of 168? _____

10. What is 65% of 4000? _____

Check
Multiply.

11. 0.08×250

12. 0.35×60

13. 0.40×600

14. 0.75×480

Answer each question.

15. What is 3% of 200? _____

16. What is 20% of 115? _____

17. What is 45% of 180? _____

18. What is 95% of 300? _____

SKILL
51

Are You Ready?
Add and Subtract Integers

Adding Integers		Subtracting Integers
Same Signs	Opposite Signs	
Step 1: Ignore the signs. Step 2: Add the two numbers. Step 3: Add the sign of the larger number to the answer.	Step 1: Ignore the signs. Step 2: Subtract the smaller number from the larger number. Step 3: Add the sign of the larger number to the answer.	Instead of subtracting, add the opposite of the second number and then use the rules for adding integers.
Example 1: Add $-3 + (-9)$. $3 + 9 = 12$ Since both numbers are negative, the answer is also negative. $-3 + (-9) = -12$	Example 2: Add $7 + (-12)$. $12 - 7 = 5$ Since the larger number is negative ($12 > 7$), the answer is also negative. $7 + (-12) = -5$	Example 3: Subtract $6 - (-3)$. The opposite of -3 is 3 . $6 + 3 = 9$

Practice on Your Own

Perform each indicated operation.

- | | | | |
|-------------------------|---------------------------|----------------------------|----------------------------|
| 1. $-11 + 16$
_____ | 2. $-22 + 18$
_____ | 3. $15 - (-10)$
_____ | 4. $-3 - 14$
_____ |
| 5. $20 + (-9)$
_____ | 6. $-6 + (-5)$
_____ | 7. $6 - (-13)$
_____ | 8. $8 - 14$
_____ |
| 9. $-100 + 95$
_____ | 10. $-7 + (-10)$
_____ | 11. $-10 - (-10)$
_____ | 12. $-25 - (-40)$
_____ |

Check

Perform each indicated operation.

- | | | | |
|---------------------------|------------------------|---------------------------|---------------------------|
| 13. $-2 + 8$
_____ | 14. $10 - 18$
_____ | 15. $14 + (-21)$
_____ | 16. $7 - (-3)$
_____ |
| 17. $40 + (-35)$
_____ | 18. $-17 - 4$
_____ | 19. $-12 + 12$
_____ | 20. $18 - (-13)$
_____ |

SKILL

52

Are You Ready?**Multiply and Divide Integers**

Multiplying and Dividing Integers	
Like Signs	Unlike Signs
Rule: When multiplying or dividing two integers with like signs (both positive or both negative), the product or quotient is always positive.	Rule: When multiplying or dividing two integers with unlike signs (one positive and one negative), the product or quotient is always negative.
Example 1: Multiply $-5(-10)$. The signs are the same so the product is $+50$.	Example 2: Divide $27 \div (-9)$. The signs are different so the quotient is -3 .

Practice on Your Own

Perform each indicated operation.

1. $5(-3)$

2. $24 \div (-6)$

3. $-11(5)$

4. $-40 \div 5$

5. $-9(-7)$

6. $-18 \div (-3)$

7. $-25(6)$

8. $\frac{-60}{4}$

9. $13(2)$

10. $\frac{-49}{-7}$

11. $-8(4)$

12. $\frac{48}{-16}$

Check

Perform each indicated operation.

13. $7(-10)$

14. $-42 \div (-7)$

15. $-8(9)$

16. $35 \div (-5)$

17. $-4(-16)$

18. $-144 \div 12$

19. $-3(-3)$

20. $\frac{-120}{-10}$

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: Please excuse my dear Aunt Sally.			
<p>Example 1</p> <p>Evaluate $8 - 2 \cdot 3$.</p> $\begin{array}{r} 8 - 6 \\ \hline 2 \end{array}$	<p>Example 2</p> <p>Evaluate $(6 + 4)^2 \div 5$.</p> $\begin{array}{r} 10^2 \div 5 \\ \hline 100 \div 5 \\ \hline 20 \end{array}$	<p>Example 3</p> <p>Evaluate $2^3 + 4 \cdot 3 - 6$.</p> $\begin{array}{r} 8 + 4 \cdot 3 - 6 \\ \hline 8 + 12 - 6 \\ \hline 20 - 6 \\ \hline 14 \end{array}$	

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

SKILL

58

Are You Ready?**Connect Words and Algebra**

To connect words and algebra, you must understand the operations involved and how to represent them. Key words are helpful in determining the operations.

Key Words	Operation or Representation
a number; an unknown quantity	any variable, such as x or n
Twice, three times, etc.	multiplication ($2n$, $3n$, etc.)
sum; more than; increased by	addition (+)
difference; less than; decreased by	subtraction (-)
each; per	multiplication
is; equals	=

Example: Jared must cut 6 lawns over the weekend. Each of the lawns takes 2 hours to cut. Write an equation representing the total time t to cut all 6 lawns.

Answer: Since each lawn takes 2 hours, multiply 2 times the number of lawns to get the total time: $t = 6(2)$.

Practice on Your Own

- Write an expression that represents the quantity 5 more than a number. _____
- Write a phrase that could be modeled by the expression $x - 15$. _____
- John bought 3 CDs and 2 DVDs. Each CD costs \$9.95, and each DVD costs \$14.98. Write an equation representing the total cost C . _____
- A triangle has sides of length 7, 10, and s . Write an equation representing the perimeter P of the triangle. _____
- The value of a painting begins at \$12,000 and increases by \$500 per year. Write an equation representing the value V of the painting at the end of any given year y . _____
- David has 56 baseball cards of which he sells 3 cards per week. Write an equation representing the number of cards n he has left at the end of any given week w . _____

Check

- Write an expression that represents a number decreased by 6. _____
- Tina bought 6 plates and 2 glasses. Each plate costs \$6.99, and each glass costs \$22.98. Write an equation representing the total cost C . _____
- Joseph opens a checking account with \$400. Each month he adds \$150 to the account. Write an equation representing the total amount A in the account at the end of any given month m . _____

SKILL
60

Are You Ready?
Evaluate Expressions

To evaluate a variable expression, replace the variable(s) with the given value(s) and use the order of operations to simplify.

Example 1: Evaluate $10y + 3$ for $y = 6$.

$10y + 3 = 10(6) + 3$	Replace y with 6 since 6 is the given value.
$= 60 + 3$	Order of operations says to multiply first.
$= 63$	Add.

Example 2: Evaluate $-6p - 15$ for $p = -4$.

$-6p - 15 = -6(-4) - 15$	Replace p with -4 since -4 is the given value.
$= 24 - 15$	Order of operations says to multiply first.
$= 9$	Subtract.

Practice on Your Own

Evaluate each expression for the given value of the variable.

- | | | |
|------------------------------------|--|--|
| 1. $7x + 1$ for $x = 5$
_____ | 2. $8m - 12$ for $m = 5$
_____ | 3. $2y + 9$ for $y = -6$
_____ |
| 4. $6p - 3$ for $p = -4$
_____ | 5. $27 - 9x$ for $x = 2$
_____ | 6. $10 + 4q$ for $q = -3$
_____ |
| 7. $-7c + 11$ for $c = 3$
_____ | 8. $\frac{1}{3}t + 5$ for $t = 9$
_____ | 9. $\frac{1}{2}m - 16$ for $m = 20$
_____ |

Check

Evaluate each expression for the given value of the variable.

- | | | |
|------------------------------------|-------------------------------------|---|
| 10. $2n - 3$ for $n = 9$
_____ | 11. $x + 7$ for $x = -5$
_____ | 12. $15 - 3h$ for $h = 5$
_____ |
| 13. $15 - 7m$ for $m = 3$
_____ | 14. $-5a - 9$ for $a = -1$
_____ | 15. $\frac{1}{2}y + (-4)$ for $y = 12$
_____ |

SKILL

68

Are You Ready?**Solve One-Step Equations**

To solve a one-step equation, do the inverse of whatever operation is being done to the variable. Remember, because it is an equation, what is done to one side of the equation must also be done to the other side.

Solve an addition equation using subtraction	Solve a subtraction equation using addition
$\begin{array}{r} x + 5 = 15 \\ -5 \quad -5 \\ \hline x = 10 \end{array}$	$\begin{array}{r} x - 8 = -3 \\ +8 \quad +8 \\ \hline x = 5 \end{array}$
Solve a multiplication equation using division	Solve a division equation using multiplication
$\begin{array}{r} 7x = 42 \\ \frac{7x}{7} = \frac{42}{7} \\ x = 6 \end{array}$	$\begin{array}{r} \frac{x}{12} = -3 \\ 12 \cdot \frac{x}{12} = -3 \cdot 12 \\ x = -36 \end{array}$

Practice on Your Own

Solve.

1. $m - 5 = 9$

2. $\frac{h}{6} = -3$

3. $6x = 54$

4. $b + 15 = 25$

5. $4y = -12$

6. $k + 9 = -3$

7. $p - 7 = -2$

8. $\frac{t}{3} = 7$

9. $\frac{x}{4} = -1$

10. $5 + h = 16$

11. $-12x = -24$

12. $r - 2 = -9$

Check

Solve.

13. $3x = 15$

14. $c - 11 = 1$

15. $d + 9 = 5$

16. $\frac{s}{6} = -5$

17. $z - 2 = -17$

18. $\frac{w}{4} = 12$

19. $-10b = 120$

20. $x + 99 = 100$

Summer Math Packet – Answer Key

Students entering 8th 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 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 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

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 49 ANSWERS:

Practice on Your Own

1. 18
2. 9
3. 280
4. 30
5. 6
6. 21
7. 33
8. 45
9. 84
10. 2600

Check

11. 20
12. 21
13. 240
14. 360

Summer Math Packet – Answer Key

Students entering 8th Grade

15. 6
16. 23
17. 81
18. 285

SKILL 51 ANSWERS:

Practice on Your Own

1. 5
2. -4
3. 25
4. -17
5. 11
6. -11
7. 19
8. -6
9. -5
10. -17
11. 0
12. 15

Check

13. 6
14. -8
15. -7
16. 10
17. 5
18. -21
19. 0
20. 31

SKILL 52 ANSWERS:

Practice on Your Own

1. -15
2. -4

3. -55
4. -8
5. 63
6. 6
7. -150
8. -15
9. 26
10. 7
11. -32
12. -3
13. -70
14. 6
15. -72
16. -7
17. 64
18. -12
19. 9
20. 12

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

SKILL 58 ANSWERS:

Practice on Your Own

1. $5 + n$
2. a number decreased by 15; 15 less than a number; the difference between a number and 15; etc.
3. $C = 3(9.95) + 2(14.98)$
4. $P = 7 + 10 + s$
5. $V = 12,000 + 500y$
6. $n = 56 - 3w$

Check

7. $n - 6$
8. $C = 6(6.99) + 2(22.98)$
9. $A = 400 + 150m$

SKILL 60 ANSWERS:

Practice on Your Own

1. 36
2. 28
3. -3

4. -27

5. 9
6. -2
7. -10
8. 8
9. -6

Check

10. 15
11. 2
12. 0
13. -6
14. -4
15. 2

SKILL 68 ANSWERS:

Practice on Your Own

1. $m = 14$
2. $h = -18$
3. $x = 9$
4. $b = 10$
5. $y = -3$
6. $k = -12$
7. $p = 5$
8. $t = 21$
9. $x = -4$
10. $h = 11$
11. $x = 2$
12. $r = -7$

Check

13. $x = 5$
14. $c = 12$
15. $d = -4$
16. $s = -30$
17. $z = -15$
18. $w = 48$
19. $b = -12$
20. $x = 1$