STM Summer Learning Packet
Summer 2023

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 you 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?

_____

_____

_____

_____

<u>Vocabulary</u>
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:

       _____

       _____

<u>Your Opinion</u>   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 _____

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 _____

Holt Algebra 1

Name _____ Date _____ Class _____

Are You Ready?

Fractions and Decimals

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

Vocabulary: $\dfrac{2}{3}$ $\longrightarrow$ Numerator   Quotient
                $\dfrac{2}{3}$ $\longrightarrow$ Denominator   Divisor$\overline{)}$Dividend

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

Step 1: Write the fraction as a division problem. The numerator is the dividend and the denominator is the divisor.	$\longrightarrow$ $5\overline{)4}$
Step 2: Add a decimal point followed by a 0 in the dividend and another decimal point in the quotient.	$\longrightarrow$ $5\overline{)4.0}$
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.	$\longrightarrow$ $\begin{array}{r} 0.8 \\ 5\overline{)4.0} \\ \underline{4\,0} \\ 0 \end{array}$ So, $\dfrac{4}{5} = 0.8$

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

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

Practice on Your Own

Write each fraction or mixed number as a decimal.

1. $\dfrac{3}{5}$ 2. $\dfrac{5}{8}$ 3. $2\dfrac{1}{4}$ 4. $\dfrac{12}{15}$

_____ _____ _____ _____

5. $-\dfrac{9}{10}$ 6. $\dfrac{12}{8}$ 7. $\dfrac{23}{10}$ 8. $-3\dfrac{1}{5}$

_____ _____ _____ _____

Check

Write each fraction or mixed number as a decimal.

9. $\dfrac{7}{10}$ 10. $-\dfrac{11}{8}$ 11. $6\dfrac{3}{20}$ 12. $\dfrac{2}{25}$

_____ _____ _____ _____

13. $\dfrac{7}{8}$ 14. $\dfrac{11}{2}$ 15. $-\dfrac{4}{5}$ 16. $\dfrac{24}{100}$

_____ _____ _____ _____

Holt Algebra 1

Are You Ready?

SKILL 13 — 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

Holt Algebra 1

Name _____ Date _____ Class _____

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: $25\% = 25. = 0.25$

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

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

Holt Algebra 1

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. $\dfrac{61}{100,000}$

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

Holt Algebra 1

Name _____ Date _____ Class _____

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

Holt Algebra 1

Name _____ Date _____ Class _____

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 $\begin{array}{r} {\scriptstyle 1\;1} \\ 42.62 \\ +\ 9.70 \\ \hline 52.32 \end{array}$	Example: Subtract 19 − 7.2 $\begin{array}{r} {\scriptstyle 8\;\;10} \\ 1\cancel{9}.0 \\ -\ 7.2 \\ \hline 11.8 \end{array}$

Practice on Your Own
Add or subtract.

1. $\begin{array}{r} 4.6 \\ +\ 2.8 \\ \hline \end{array}$

2. $\begin{array}{r} 43.60 \\ -29.57 \\ \hline \end{array}$

3. $\begin{array}{r} 15.62 \\ +\ 0.88 \\ \hline \end{array}$

4. $\begin{array}{r} 1.82 \\ -0.95 \\ \hline \end{array}$

5. 9.5 + 4.13

6. 1.24 − 0.66

7. 92.5 + 16.5

8. 11 − 8.43

Check
Add or subtract.

9. $\begin{array}{r} 2.79 \\ +\ 7.42 \\ \hline \end{array}$

10. $\begin{array}{r} 23.0 \\ -\ 8.5 \\ \hline \end{array}$

11. $\begin{array}{r} 50.34 \\ +\ 37.80 \\ \hline \end{array}$

12. $\begin{array}{r} 1.60 \\ -\ 0.99 \\ \hline \end{array}$

13. 8.7 + 12.23

14. 13 − 8.49

15. 68.48 − 67.86

16. 43.47 + 28.53

Holt Algebra 1

Name _____ Date _____ Class _____

Are You Ready?
45 *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 → $\begin{array}{r} 1\,4 \\ 9.27 \\ \times\ 0.6 \\ \hline 5.562 \end{array}$ ← 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 → 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

_____ _____ _____ _____

Holt Algebra 1

Name _____ Date _____ Class _____

46 *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 $7.68 \div 0.8$.

$$0.8\overline{)7.68} \longrightarrow 8\overline{)76.8} \longrightarrow \begin{array}{r} 9.6 \\ 8\overline{)76.8} \\ -72 \\ \hline 48 \\ -48 \\ \hline 0 \end{array} \qquad \text{The quotient is 9.6.}$$

Practice on Your Own
Divide.

1. $11.2 \div 7$ **2.** $8.12 \div 4$ **3.** $4.96 \div 2$ **4.** $0.85 \div 5$

_____   _____   _____   _____

5. $7.8 \div 0.2$ **6.** $4.32 \div 0.6$ **7.** $18.75 \div 0.5$ **8.** $0.508 \div 0.4$

_____   _____   _____   _____

Check
Divide.

9. $22.5 \div 9$ **10.** $6.64 \div 4$ **11.** $7.47 \div 3$ **12.** $0.58 \div 2$

_____   _____   _____   _____

13. $16.8 \div 0.8$ **14.** $4.59 \div 0.9$ **15.** $11.2 \div 0.7$ **16.** $0.528 \div 0.6$

_____   _____   _____   _____

Holt Algebra 1

Name _____ Date _____ Class _____

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

_____ _____ _____ _____

Holt Algebra 1

Name _____ Date _____ Class _____

Are You Ready?

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

_____   _____   _____   _____

 Holt Algebra 1

Are You Ready?

SKILL 55 *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	Example 2	Example 3
Evaluate $8 - 2 \cdot 3$. $8 - 6$ (2)	Evaluate $(6 + 4)^2 \div 5$. $10^2 \div 5$ $100 \div 5$ (20)	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. $8 \cdot 5 + 3 \cdot 6$

Holt Algebra 1

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

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