2022 -2023 Supply List
for Students Entering 7th Grade

Required	Suggested
1½ or 2 inch binder *(Math)* 3 inch binder *(Social Studies)* 2 sets of dividers for binders *(Math & Social Studies)* 2 packs of loose leaf paper *(Math, ELA)* 5 pocket folders *(ELA, Social Studies, Science, Unified Arts, Home/School)* 1 composition notebooks *(Social Studies & Science)* 1 pack of colored pencils 2 glue sticks 1 pack of blue or black ink pens 2 Red pens 2 packs of pencils 2 highlighters 1 supply pouch or pencil box	- Tissues - Hand sanitizer

7th Grade Summer Reading
2022- 2023

<u>**Choose one**</u> of the seven books described in the chart on page 2 of the packet.

- You can find copies of the book at your local library, online, or in a bookstore.

- You may also listen to the audio book version of your novel.

2.) Read your chosen novel. As you read, fill out the graphic organizer located on page 3 of this packet. The organizer focuses on identifying the character traits of **the novel's main character**.

3.) When you arrive back at school in September, ***you will be required to turn in the organizer for a grade***. You will <u>**also**</u> be required to complete a writing assignment about the character traits of the main character in your novel. ***You will be able to use your graphic organizer when completing the writing assignment***.

4.) If you have any questions as you are reading (about the novel or the organizer), please email…

- Mrs. Dillon at ldillon@town.hull.ma.us

Title	Author	Description
The True Confessions of Charlotte Doyle	Avi	Thirteen-year-old Charlotte Doyle is excited to return home from her school in England to her family in Rhode Island in the summer of 1832. But when the two families she was supposed to travel with mysteriously cancel their trips, Charlotte finds herself the lone passenger on a long sea voyage with a cruel captain and a mutinous crew. Worse yet, she becomes enmeshed in a conflict between them! Charlotte's ocean crossing turns into a harrowing journey, where she gains a villainous enemy . . . and is put on trial for murder!
I Am Malala	Malala Yousafzai	When the Taliban took control of the Swat Valley in Pakistan, one girl spoke out. Malala Yousafzai fought for her right to an education. On Tuesday, October 9, 2012, when she was fifteen, she almost paid the ultimate price. She was shot in the head at point-blank range while riding the bus home from school, and few expected her to survive. Malala's miraculous recovery has taken her on an extraordinary journey from a remote valley in northern Pakistan to the halls of the United Nations in New York.
Red Midnight* ** Some mature content*	Ben Mikaelsen	When guerrilla soldiers strike Santiago's village, they destroy everything in their path -- including his home and family. Santiago and his four-year-old sister escape, but the only way they can be truly safe is to leave Guatemala behind forever. So, Santiago and Angelina set sail in a sea kayak their Uncle Ramos built. Sailing through narrow channels guarded by soldiers, shark-infested waters, and days of painful heat and raging storms, Santiago and Angelina face an almost impossible voyage hundreds of miles across the open ocean, heading for the hope of a new life in the United States.
Boys Without Names	Kashmira Sheeth	For eleven-year-old Gopal and his family, life in their rural Indian village is over: *We stay, we starve*, his baba has warned. With the darkness of night as cover, they flee to the big city of Mumbai in hopes of finding work and a brighter future. When a stranger approaches Gopal with the promise of a factory job, he jumps at the offer. But Gopal has been deceived. There is no factory, just a small, stuffy sweatshop where he and five other boys are forced to make beaded frames for no money and little food. Locked in a rundown building in an unknown part of the city, Gopal despairs of ever seeing his family again.
Legend	Marie Lu	What was once the western United States is now home to the Republic, a nation perpetually at war with its neighbors. Born into an elite family in one of the Republic's wealthiest districts, fifteen-year-old June is a prodigy being groomed for success in the Republic's highest military circles. Born into the slums, fifteen-year-old Day is the country's most wanted criminal. But his motives may not be as malicious as they seem. From very different worlds, June and Day have no reason to cross paths - but in a shocking turn of events, the two uncover the truth of what has really brought them together, and the sinister lengths their country will go to keep its secrets.
Roll of Thunder, Hear My Cry	Mildred Taylor	With the land to hold them together, nothing can tear the Logans apart. Why is the land so important to Cassie's family? It takes the events of one turbulent year—the year of night riders and burnings, the year a white girl humiliates Cassie in public simply because she is black—to show Cassie that having a place of their own is the Logan family's lifeblood. No matter how others may degrade them, the Logans possess something no one can take away.
Crossing the Wire	Will Hobbs	When falling crop prices threaten his family with starvation, fifteen-year-old Victor Flores heads north in an attempt to "cross the wire" from Mexico into America so he can find work and help ease the finances at home. But with no coyote money to pay the smugglers who sneak illegal workers across the border, Victor struggles to survive as he jumps trains, stows away on trucks, and hikes grueling miles through the Arizona desert. Victor's passage is fraught with freezing cold, scorching heat, hunger, and dead ends. It's a gauntlet run by many attempting to cross the border, but few make it.

Summer Reading: Characterization Graphic Organizer

Name:_____ Book Title:_____ Author:_____

<u>DIRECTIONS</u>: Use the chart to keep track of the main character's personality traits as you read.

- Write down <u>at least 3 DIFFERENT</u> personality traits that the main character shows throughout the book. Write down the trait and a direct quotation (word for word in quotation marks with the page number) that shows that trait. Then, write at least 2 complete sentences in your own words to explain what was happening and why the quote shows the trait. You may use the attached list of character traits for ideas.

Main Character's Name and the Trait	Direct Evidence for the Trait (a direct quotation showing the trait – word for word in quotation marks with page #)	Explain the Evidence in Your Own Words (at least 2 complete sentences explaining what was happening and why the quote shows the trait)
Example Wallace is <u>courageous</u>.	*Example* "He stared down the bully with a defiant and confident attitude." (Page 10)	*Example* Wallace knew the bully had hurt other people and could possibly hurt him. Other people avoided or ran from the bully, but Wallace faced him. Wallace was scared, but he had the courage to stay and stare at the bully anyway. He was courageous and didn't show his fear.

CHARACTER TRAITS are words that describe a character's personality or the qualities that make him or her unique. In other words, what adjectives would you use to describe the character's personality to someone else?

Positive Character Traits

Active	Disciplined	Maternal	Serious
Adventurous	Dramatic	Mature	Sharing
Affectionate	Educated	Mellow	Skillful
Ambitious	Energetic	Obedient	Sociable
Amusing	Enthusiastic	Optimistic	Spontaneous
Appreciative	Fair	Organized	Stoic
Athletic	Forgiving	Patient	Stylish
Brave	Friendly	Peaceful	Sweet
Calm	Fun-loving	Persuasive	Sympathetic
Caring	Generous	Polite	Tidy
Charming	Gentle	Popular	Tolerant
Cheerful	Hardworking	Protective	Tough
Classy	Helpful	Realistic	Trusting
Clever	Heroic	Relaxed	Uncomplaining
Confident	Honest	Reliable	Understanding
Considerate	Humorous	Respectful	Unpredictable
Cooperative	Independent	Responsible	Wise
Courageous	Intelligent	Romantic	Witty
Creative	Kind	Scholarly	
Curious	Lovable	Selfless	
Daring	Loyal	Sentimental	

Neutral Character Traits

Businesslike	Dreamy	Modern	Private	Solemn
Casual	Emotional	Old-fashioned	Proud	Solitary
Childish	Frugal	Persistent	Quiet	Studious
Determined	Intense	Predictable	Sensitive	

Negative Character Traits

Aggressive

Angry	Disruptive	Insecure	Picky
Annoying	Dull	Intolerant	Power-hungry
Argumentative	Fake	Irresponsible	Pretentious
Arrogant	Foolish	Jealous	Procrastinating
Bossy	Forgetful	Lazy	Resentful
Careless	Fraudulent	Mean	Ridiculous
Cowardly	Frightening	Messy	Rowdy
Critical	Greedy	Moody	Rude
Cruel	Grim	Naïve	Sarcastic
Destructive	Grouchy	Narcissistic	Solemn
Dishonest	Hateful	Nervous	Strict
Disloyal	Impatient	Opinionated	Stubborn
Disobedient	Impulsive	Pessimistic	
Disrespectful	Inconsiderate	Petty	

Dear Incoming Grade 7 Math Students,

Summer work is assigned to ensure an easier transition between 6th and 7th grade, and to keep your math skills sharp over the summer. The expectation is that all students bring the completed assignment on the first day of school. You will be given one reminder, then points will be deducted for each day the packet is late.

The idea is to do the packet throughout the summer, not complete it all in June or during the last few days of August.

If you need help completing the problems, you have a couple of options:
- Review the examples at the top of each page of the packet.
- Ask a friend/parent/guardian/sibling for help!
- Visit some helpful websites like...
  - Khan Academy
  - Virtual Nerd
- Email Mrs. Tannuzzo @ ltannuzzo@hullpublicschools.us

All problems are non-calculator problems.
All answers must show work!!!

Grading Rubric
Complete all parts of the packet for full credit:
- ☐ Completed/initialed Summer Math Packet Log
- ☐ Content Pages
  - All problems attempted
  - All work shown
- ☐ Reflection Page
- ☐ Extra Credit Page
- ☐ *2 points per day will be deducted packets that are late beyond one day*

Name_____

Parent/Guardian Signature: _____

Summer Math Packet Log

Directions: Record the date and number of minutes spent on this packet each time you work on it in the table below. Have a parent/guardian initial each time you work on the packet ☺

Date	Number of Minutes	Parent/Guardian Initial

Calculating Unit Rates

A **rate** is a ratio of two measurements having different kinds of units. When a rate is simplified so that it has a denominator of 1, it is called a **unit rate**. You can find a unit rate by dividing.

Example

Benito ate 48 raisins in 8 minutes. How many raisins did he eat per minute, if he ate the same number each minute?

$$\frac{48 \text{ raisins}}{8 \text{ minutes}} \overset{\div 8}{\underset{\div 8}{=}} \frac{6 \text{ raisins}}{1 \text{ minute}}$$ Divide the numerator and denominator by 8 to get a denominator of 1.

The unit rate is 6 raisins per minute.

Exercises

Calculate the unit rate in each scenario. Write your answer in a complete sentence.

1. 6 eggs for 3 people

2. $12 for 4 pounds

3. 40 pages in 8 days

4. **GROCERIES** Mr. Gonzalez spends $135 for 5 bags of groceries. How much does he spend per bag of groceries, if each bag costs the same?

5. **TRAIN** Ms. Terry travels by train to see famous theme parks. She travels a distance of 728 miles in 8 hours. If the train maintains a constant speed, how many miles does she travel in one hour?

6. **FOOTBALL** A quarterback throws 222 yards in 6 games. How many yards does he throw in one game if he throws the same amount in each game?

7. **CLOTHING** It costs $15.24 for 4 t-shirts. What is the cost per t-shirt?

Points Earned: _____

Ratio and Rate Problems

You can solve rate and ratio problems by using a **bar diagram** or by using a **unit rate**.

Examples

Three servings of broccoli contain 150 Calories. How many Calories will 5 servings contain?

Method 1   Use a bar diagram.

| 50 | 50 | 50 | ·150 calories |

Draw a bar diagram to represent the situation.
Each section represents $150 \div 3$, or 50 Calories.
So, 5 servings of broccoli contain 250 Calories.

| 50 | 50 | 50 | 50 | 50 | ? Calories |

Method 2   Use a unit rate.

Step 1   Find the unit rate. $\dfrac{150 \text{ Calories}}{3 \text{ servings}} = \dfrac{\text{ Calories}}{1 \text{ serving}}$ $\dfrac{150 \text{ Calories}}{3 \text{ servings}} = \dfrac{50 \text{ Calories}}{1 \text{ serving}}$

$\div 3$ $\div 3$

Step 2   Multiply. $\dfrac{50 \text{ Calories}}{1 \text{ serving}} \times 5 \text{ servings} = 250 \text{ Calories}$

Exercises

Solve each problem using one of the methods reviewed above. Show your work.

1. **MUSIC** Jeremy spent $33 on 3 CDs. At this rate, how much would 5 CDs cost?

2. **AQUARIUM** At an aquarium, 6 out of 18 deliveries are plants. Out of 15 deliveries in one week, how many are plants?

3. **ELECTIONS** Three out of four students surveyed in a school said they will vote for Nuncio for class president. Predict how many of the 340 students in the school would vote for Nuncio.

4. **STRAWBERRIES** At a local fruit stand, Luisa spends $3.96 for 2 pounds of strawberries. How much can she expect to pay for 4 pounds of strawberries?

5. **POGO STICK** On her pogo stick, Lula made 24 hops in 30 seconds. At this rate, how many hops will she make in 50 seconds?

6. **TESTS** On a test, Matilda answered 12 out of the first 15 problems correctly. If this rate continues, how many of the next 25 problems will she answer correctly?

Divide Multi-Digit Numbers

When one number is divided by another, the result is called a *quotient*. The *dividend* is the number that is divided and the *divisor* is the number used to divide another number.

Example

Find 592 ÷ 30.

Estimate 592 ÷ 30 ≈ 600 ÷ 30 or 20.

```
      19 R22
30) 592             Divide each place-value position from left to right.
    −30
    292
   −270
     22             Since 292 − 270 = 22 and 22 < 30, 22 is the remainder.
```

The quotient is 19 R22.

Exercises

Find each quotient.

1. 595 ÷ 23

2. 874 ÷ 38

3. 554 ÷ 23

4. 925 ÷ 58

5. 1,894 ÷ 62

6. 1,089 ÷ 59

7. 3,604 ÷ 85

8. 379 ÷ 74

Adding and Subtracting Decimals

Example 1

Find the sum of 3.25 and 12.6.

Estimate 3.25 + 12.6 ≈ 3 + 13 or 16.

$$\begin{array}{r} 3.25 \\ + 12.60 \\ \hline \end{array}$$

Line up the decimal points. Annex a zero so that both numbers have the same number of decimal places.

$$\begin{array}{r} 3.25 \\ + 12.60 \\ \hline 15.85 \end{array}$$

Add as you would add whole numbers. Place the decimal point.

The sum is 15.85.

Example 2

Find the difference of 26.82 and 12.15.

Estimate 26.82 − 12.15 ≈ 27 − 12 or 15.

$$\begin{array}{r} 26.82 \\ - 12.15 \\ \hline \end{array}$$

Line up the decimal points.

$$\begin{array}{r} 26.82 \\ - 12.15 \\ \hline 14.67 \end{array}$$

Subtract as with whole numbers.

The difference is 14.67.

Exercises

Find each sum or difference. Show all of your work.

1. $3.1 + 9.4$

2. $4.88 + 8.1$

3. $14.05 + 9.2$

4. $6.008 + 0.22$

5. $5 - 3.12$

6. $75.23 - 50.09$

7. $9 - 7.7$

8. $0.62 - 0.35$

Multiply Decimals by Decimals

When you multiply a decimal by a decimal, multiply the numbers as if you were multiplying all whole numbers. To decide where to place the decimal point, find the sum of the number of decimal places in each factor. The product has the same number of decimal places.

Example 1

Find 5.2 × 6.13.

Estimate: 5 × 6 or 30

```
    5.2   ◄——— one decimal place
  × 6.13  ◄——— two decimal places
    156
    52
  +312
  31.876  ◄——— three decimal places
```

The product is 31.876.
Compared to the estimate, the product is reasonable.

Example 2

Find 2.3 × 0.02.

Estimate: 2 × 0.02 or 0.04

```
    2.3   ◄——— one decimal place
  × 0.02  ◄——— two decimal places
  0.046   ◄——— Annex a zero to make three decimal places.
```

The product is 0.046.
Compared to the estimate, the product is reasonable.

Exercises
Multiply.

1. 7.2 × 2.1

2. 4.3 × 8.5

3. 2.64 × 1.4

4. 14.23 × 8.21

5. 5.01 × 11.6

6. 9.001 × 4.2

7. 3.24 × 0.008

8. 0.012 × 2.9

9. 0.9 × 11.2

Points Earned: _____

Divide Decimals by Decimals

When you divide a decimal by a decimal multiply both the divisor and the dividend by the same power of ten. Then divide as with whole numbers.

Example 1

Find 10.14 ÷ 5.2.

First, estimate: $10 \div 5 = 2$

Multiply by 10 to make a whole number.

$5.2\overline{)10.14}$ ⟶ $52\overline{)101.40}$

Place the decimal point.
Divide as with whole numbers.

Multiply by the same number, 10.

$$\begin{array}{r} 1.95 \\ 52\overline{)101.40} \\ -52 \\ \hline 494 \\ -468 \\ \hline 260 \\ -260 \\ \hline 0 \end{array}$$

Annex a zero to continue.

10.14 divided by 5.2 is 1.95.

Check $1.95 \times 5.2 = 10.14$ ✓

Compare the quotient with the estimate.

Exercises

Divide. Show all work and circle your final answer.

1. $9.8 \div 1.4$

2. $4.41 \div 2.1$

3. $16.848 \div 0.72$

4. $8.652 \div 1.2$

5. $0.5 \div 0.001$

6. $9.594 \div 0.06$

Add and Subtract Unlike Fractions

To add or subtract fractions with different denominators,

- Rename the fractions using the least common denominator (LCD).

- Add or subtract as with like fractions.

- If necessary, simplify the sum or difference.

Example

Find $\frac{2}{3} + \frac{1}{4}$.

Method 1 Use a model.

$$\begin{array}{r} \frac{2}{3} \\ + \frac{1}{4} \\ \hline \frac{11}{12} \end{array}$$
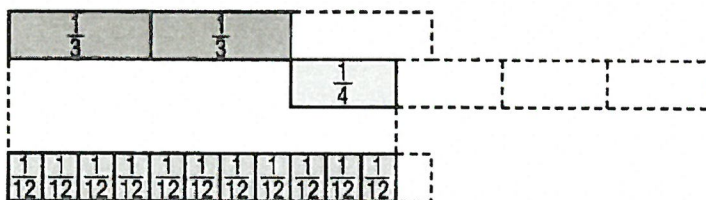
Method 2 Use the LCD.

$\frac{2}{3} + \frac{1}{4} = \frac{2}{3} \cdot \frac{4}{4} + \frac{1}{4} \cdot \frac{3}{3}$ Rename using the LCD, 12.

$\quad = \frac{8}{12} + \frac{3}{12}$ or $\frac{11}{12}$ Add the fractions.

Exercises

Add or subtract. Write in simplest form.

1. $\frac{1}{2} + \frac{3}{4}$ 2. $\frac{5}{8} - \frac{1}{2}$

3. $\frac{7}{15} + \frac{5}{6}$ 4. $\frac{2}{5} - \frac{1}{3}$

5. $\frac{5}{9} + \frac{5}{12}$ 6. $\frac{11}{12} - \frac{3}{4}$

7. $\frac{7}{8} - \frac{1}{3}$ 8. $\frac{7}{9} - \frac{1}{2}$

9. $\frac{3}{10} + \frac{7}{12}$ 10. $\frac{3}{5} + \frac{2}{3}$

Add and Subtract Mixed Numbers

To add or subtract mixed numbers:

• Add or subtract the fractions. Rename using the LCD if necessary.

• Then, add or subtract the whole numbers.

• Simplify if necessary.

Example 1

Find $6\frac{1}{10} + 2\frac{3}{10}$. Write in simplest form.

$$6\frac{1}{10}$$
$$+ \quad 2\frac{3}{10}$$
$$\overline{8\frac{4}{10} \text{ or } 8\frac{2}{5}}$$

Add the whole numbers and the fractions separately.

Simplify.

Example 2

Find $8\frac{2}{3} - 6\frac{1}{2}$.

$$8\frac{2}{3} \rightarrow 8\frac{4}{6}$$
$$-6\frac{1}{2} \rightarrow 6\frac{3}{6}$$
$$\overline{\qquad 2\frac{1}{6}}$$

Rename the fractions using the LCD.

Subtract.

Example 3

Find $4\frac{1}{4} - 2\frac{3}{5}$.

$$4\frac{1}{4} \rightarrow 4\frac{5}{20} \rightarrow 3\frac{25}{20}$$
$$-2\frac{3}{5} \rightarrow 2\frac{12}{20} \rightarrow 2\frac{12}{20}$$
$$\overline{\qquad\qquad\qquad\quad 1\frac{13}{20}}$$

Rename $4\frac{5}{20}$ as $3\frac{25}{20}$.

Subtract the whole numbers and then the fractions.

Exercises

Add or subtract. Write in simplest form.

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

2. $2\frac{5}{6} - 1\frac{1}{6}$

3. $3\frac{2}{3} + 2\frac{1}{2}$

4. $5\frac{3}{4} - 3\frac{1}{6}$

5. $8 - 6\frac{7}{8}$

6. $1\frac{4}{5} + \frac{3}{10}$

Divide Fractions

You can use reciprocals to divide fractions. To divide by a fraction, multiply by its reciprocal.

Example 1

Find $\frac{1}{2} \div \frac{1}{5}$.

$\frac{1}{2} \div \frac{1}{5} = \frac{1}{2} \times \frac{5}{1}$ Multiply by the reciprocal, $\frac{5}{1}$.

$\quad\quad = \frac{5}{2}$ or $2\frac{1}{2}$ Multiply numerators and denominators.

Example 2

Find $\frac{2}{3} \div \frac{4}{5}$.

$\frac{2}{3} \div \frac{4}{5} = \frac{2}{3} \times \frac{5}{4}$ Multiply by the reciprocal, $\frac{5}{4}$.

$\quad\quad = \frac{\overset{1}{\cancel{2}} \times 5}{3 \times \underset{2}{\cancel{4}}}$ Divide 2 and 4 by the GCF, 2.

$\quad\quad = \frac{5}{6}$ Multiply numerators and denominators.

Exercises

Divide. Cross-Simplify where you can after using the reciprocal. Write answers in simplest form.

1. $\frac{1}{3} \div \frac{2}{5}$

2. $\frac{1}{9} \div \frac{1}{2}$

3. $\frac{2}{3} \div \frac{1}{4}$

4. $\frac{1}{2} \div \frac{3}{4}$

5. $\frac{4}{5} \div \frac{1}{2}$

6. $\frac{4}{5} \div \frac{1}{10}$

7. $\frac{5}{12} \div \frac{5}{6}$

8. $\frac{9}{10} \div \frac{1}{3}$

9. $\frac{3}{4} \div \frac{7}{12}$

10. $\frac{9}{10} \div \frac{1}{9}$

11. $\frac{2}{3} \div \frac{5}{8}$

12. $\frac{3}{4} \div \frac{7}{9}$

13. $\frac{1}{2} \div 2$

14. $\frac{5}{6} \div 15$

15. $\frac{3}{8} \div \frac{3}{4}$

16. $\frac{7}{10} \div \frac{5}{7}$

Points Earned: _____

Multiply Mixed Numbers

To multiply mixed numbers, write the mixed numbers as improper fractions and then multiply as with fractions.

Example 1

Find $\frac{1}{4} \times 1\frac{2}{3}$.

Estimate. Use compatible numbers. $\frac{1}{2} \times 2 = 1$

$$\frac{1}{4} \times 1\frac{2}{3} = \frac{1}{4} \times \frac{5}{3} \qquad \text{Write } 1\frac{2}{3} \text{ as } \frac{5}{3}.$$

$$= \frac{1 \times 5}{4 \times 3} \qquad \text{Multiply.}$$

$$= \frac{5}{12} \qquad \text{Simplify. Compare to the estimate.}$$

Example 2

Find $1\frac{1}{3} \times 2\frac{1}{4}$.

$$1\frac{1}{3} \times 2\frac{1}{4} = \frac{4}{3} \times \frac{9}{4} \qquad \text{Convert mixed numbers to improper fractions.}$$

$$= \frac{\overset{1}{\cancel{4}}}{\underset{1}{\cancel{3}}} \times \frac{\overset{3}{\cancel{9}}}{\underset{1}{\cancel{4}}} \qquad \text{Divide the numerator and denominator by their common factors, 3 and 4. } \textbf{(Cross-simplify)}$$

$$= \frac{3}{1} \text{ or } 3 \qquad \text{Write answer in simplest form.}$$

Exercises

Multiply. Write in simplest form.

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

2. $1\frac{1}{5} \times \frac{3}{4}$

3. $\frac{2}{3} \times 1\frac{3}{5}$

4. $\frac{2}{3} \times 3\frac{1}{2}$

5. $\frac{2}{9} \times 1\frac{1}{6}$

6. $2\frac{4}{9} \times \frac{4}{11}$

7. $2\frac{1}{2} \times 1\frac{1}{3}$

8. $1\frac{1}{4} \times 3\frac{3}{5}$

9. Find the product of $\frac{1}{5}$ and $3\frac{1}{3}$.

10. Simplify $4\frac{2}{3} \times 1\frac{1}{4}$.

Points Earned: _____

Calculating the Mean

The **mean** of a data set is the sum of the data divided by the number of pieces of data.

Example

The pictograph shows the number of members on four different swim teams. Find the mean number of members for the four different swim teams.

$$mean = \frac{9 + 11 + 6 + 10}{4}$$
$$= \frac{36}{4} \text{ or } 9$$

Swim Team Members	
Amberly	오오오오오오오오오
Carlton	오오오오오오오오오오오
Hamilton	오오오오오오
West High	오오오오오오오오오오

Key: = 오 1 swimmer

Exercises

Find the mean for each set of data.

1.

Month	Snowfall (in.)
Nov.	20
Dec.	19
Jan.	20
Feb.	17
Mar.	4

2.

Jacket Prices

Bar graph with values: A = 22, B = 25, C = 28, D = 9, E = 21
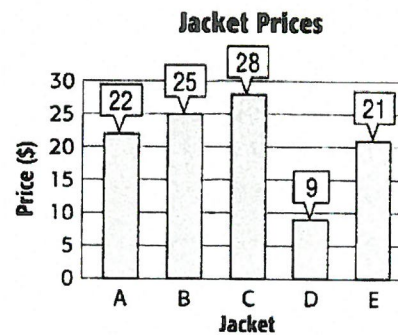
3.

Number of Bicycles	
Smiths	🚲🚲
Castros	🚲🚲🚲🚲🚲🚲🚲
Lius	🚲🚲

Key: = 🚲 1 bicycle

4.

Checker Pieces	
A	●●●●●●
B	●
C	●●●●●●●●
D	●●●●●

Key: = ● 1 checker piece

Points Earned: _____

Calculating the Median and Mode

The **median** of a list of values is the value appearing at the center of a sorted version of the list, or the mean of the two central values, if the list contains an even number of values.

The **mode** is the number or numbers that occur most often.

Example
The table shows the costs of seven different books.
Find the mean, median, and mode of the data.

Book Costs ($)			
22	13	11	16
14	13	16	

Mean: $\dfrac{22 + 13 + 11 + 16 + 14 + 13 + 16}{7} = \dfrac{105}{7}$ or 15

To find the median, write the data in order from least to greatest.
Median: 11, 13, 13, 14, 16, 16, 22

To find the mode, find the number or numbers that occur most often.
Mode: 11, 13, 13, 14, 16, 16, 22

The mean is $15. The median is $14. There are two modes, $13 and $16.

Exercises
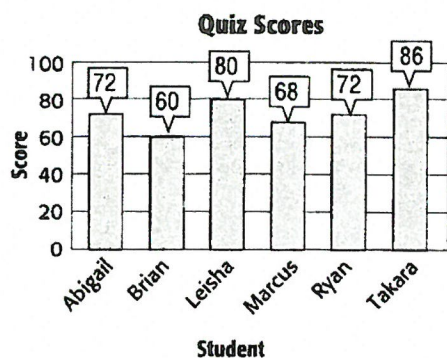**Find the mean, median, and mode of each set of data.**

1. hours worked: 14, 13, 14, 16, 8

2. points scored by a football team:
29, 31, 14, 21, 31, 22, 20

3. miles ran: 5, 4, 9, 1, 6

4. ages of contestants:
27, 21, 22, 22, 24, 20, 25, 24

5.

6.

Snowfall (in.)					
0	2	2	3	3	3
5	5	6	7	8	

EXTRA CREDIT: Area of Composite Figures

To find the area of a composite figure, separate it into figures whose areas you know how to find, and then add the areas.

Example
Find the area of the figure at the right in square feet.

The figure can be separated into a rectangle and a trapezoid. Find the area of each.

Area of Rectangle

$A = \ell w$	Area of a rectangle.
$A = 12 \cdot 8$	Replace ℓ with 12 and w with 8.
$A = 96$	Multiply.

Area of Trapezoid

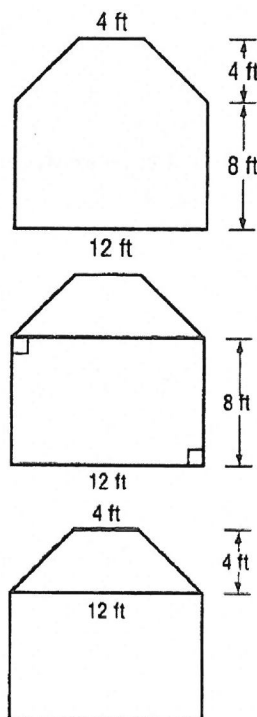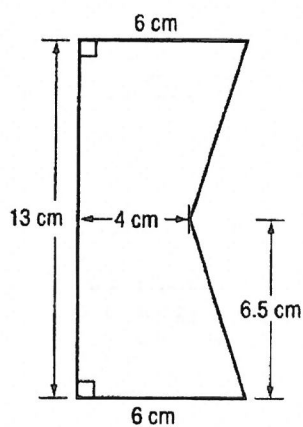|	
$A = \frac{1}{2}h(b_1 + b_2)$	Area of a trapezoid
$A = \frac{1}{2}(4)(4 + 12)$	Replace h with 4, b_1 with 4, and b_2 with 12.
$A = 32$	Multiply.

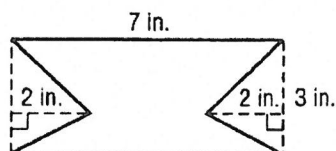The area of the figure is $96 + 32$ or 128 square feet.

Exercises

Find the area of each figure. Round to the nearest tenth if necessary.
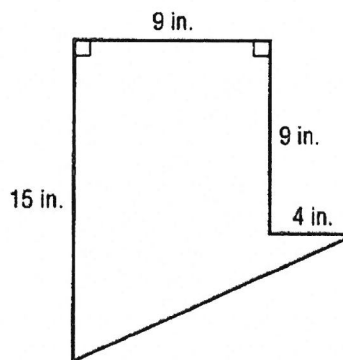
1.

2.

3.

Summer Math Packet Reflection

Name _____

After completing your Summer Math Packet, please answer the following questions:

1) List the Math skills and concepts that you are __most confident__ with. In other words, which problems were the __easiest__ for you to solve? (example... order of operations)

_____   _____

_____   _____

2) List the Math skills and concepts that you found to be the most __difficult__. In other words, which problems were the __hardest__ for you to solve? (example... dividing decimals)

_____   _____

_____   _____

3) What are your __expectations for Math class this year__? What do you expect to learn? What do you expect Math class to be like?

_____

_____

4) Write __two personal Math goals__ to strive towards this school year.

   For example...

   This year in Math class, I hope to memorize my Math facts.

   I also want to get better at solving word problems.

_____

_____

_____