1. Ms. Franklin bought a used car for $7,250. She paid for the car in 5 equal payments. How much was each payment?
   A $105
   B $145
   C $1,050
   D $1,450

2. Each of 24 students in a class is given a set of building blocks. Each set has 16 blocks. How many blocks do the students have in all?
   A 144 blocks
   B 240 blocks
   C 344 blocks
   D 384 blocks

3. One state has a population of 819,761 people. Another state has a population of 900,877 people. What is the difference in population between the two states?
   A 81,116 people
   B 91,116 people
   C 101,116 people
   D 119,116 people

4. Amber ran a 5-kilometer race. How many meters did Amber run?
   A 50 meters
   B 500 meters
   C 5,000 meters
   D 50,000 meters

5. Aliya is 6 times as old as her sister. Her sister is 1 year old. Write a multiplication sentence to represent Aliya’s age.

6. The cost of a house is $134,500. Round the cost to the nearest ten thousand.

7. What is $3\frac{4}{12} + 2\frac{3}{12}$?

8. Compare 0.43 and 0.5.

9. Complete the table.

<table>
<thead>
<tr>
<th>Kilograms</th>
<th>Grams</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>2,000</td>
</tr>
<tr>
<td>4</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

10. Write 6,248 in expanded form.
Another Look!
Find the perimeter of the rectangle.

Area = 20 sq cm

The length and width of a rectangle are used to find both the perimeter and the area of the figure.

Use the formula for the area of a rectangle to find the width.

\[ A = \ell \times w \]
\[ 20 = 5 \times w \]
\[ w = 4 \]

The width of the rectangle is 4 centimeters.

Use the formula for perimeter to find the perimeter of the rectangle.

\[ P = (2 \times \ell) + (2 \times w) \]
\[ P = (2 \times 5) + (2 \times 4) \]
\[ P = 10 + 8 = 18 \]

The perimeter of the rectangle is 18 centimeters.

For 1–4, use the formulas for perimeter and area to solve each problem.

1. Find \( n \).

2. Find \( n \). Perimeter = 86 in.

3. Find \( n \). Then find the perimeter.

4. Find \( n \). Then find the area.

Perimeter = \( 60\frac{3}{4} \) in.
5. On Friday, 39,212 fans attended the baseball game at a major league baseball park. On Saturday, 41,681 attended and on Sunday 42,905 attended. How many more fans attended on Saturday and Sunday than on Friday?

6. Write 352,619 in expanded form and using number names.

7. One side of the flower garden is 3 times as great as the other. What are the dimensions of the flower garden?

8. The sides of each square in the potholder measure 1 inch. What is the perimeter and area of the potholder?

9. How many seconds are in 3 minutes? There are 60 seconds in one minute. Complete the table.

<table>
<thead>
<tr>
<th>Minutes</th>
<th>Seconds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

10. Higher Order Thinking An art class is planning to paint a rectangular mural with an area of 60 square feet. It has to be at least 4 feet high but no more than 6 feet high. The length and width have to be whole numbers. List all possible widths for the mural.

Common Core Assessment

11. The area of a square-shaped rug is 81 square feet. If the rug is 9 ft long, what is its perimeter? Explain.

Use what you know about squares to help solve the problem.
Vocabulary

1. The **perimeter** of a figure is the distance around the figure. The **area** of a figure is the number of square units needed to cover the figure.

A **formula** is an equation that uses symbols to relate two or more quantities. The formulas for area and perimeter of a rectangle are shown in the table.

<table>
<thead>
<tr>
<th>Area of a rectangle</th>
<th>( A = \ell \times w )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perimeter of a rectangle</td>
<td>( P = 2\ell + 2w )</td>
</tr>
</tbody>
</table>

\( \ell \) represents the length
\( w \) represents the width

Use the formulas to calculate the perimeter and the area of a rectangle that is 7 inches long and 5 inches wide.

**Perimeter**

\[
P = 2\ell + 2w
\]

\[
P = (2 \times 7) + (2 \times 5)
\]

\[
P = 14 + 10
\]

\[
P = 24 \text{ inches}
\]

**Area**

\[
A = \ell \times w
\]

\[
A = 7 \times 5
\]

\[
A = 35 \text{ square inches}
\]

The perimeter of the rectangle is **24** inches.

The area of the rectangle is **35** square inches.

On the Back!

4. Find the perimeter of the rectangle. Then find the area of the rectangle.

A rectangle has a length of 24 feet and a width of 6 feet. What is the perimeter and area of the rectangle? Use Exercises 2 and 3 to answer the question.

2. Find the perimeter.

\[
P = 2\ell + 2w
\]

\[
P = (2 \times 24) + (2 \times 6)
\]

\[
P = 48 + 12
\]

\[
P = 60 \text{ feet}
\]

3. Find the area.

\[
A = \ell \times w
\]

\[
A = 24 \times 6
\]

\[
A = 144 \text{ square feet}
\]
Another Look!

Melanie has to create a pattern using the rule “Add 11.” Her starting number is 11. What are the next 5 numbers in Melanie’s pattern? Describe a feature of the pattern.

Use the rule to continue the pattern.

\[
\begin{array}{cccccc}
11 & 22 & 33 & 44 & 55 & 66 \\
\end{array}
\]

Describe features of the pattern.

• The numbers in the pattern are multiples of 11.
• The digits in the ones place increase by one as the pattern continues.

For 1–6, continue each pattern. Describe a feature of each pattern.

1. Subtract 2: 30, 28, 26, _____, _____
2. Add 8: 14, 22, 30, _____, _____

3. Add 9: 9, 18, 27, _____, _____
4. Subtract 7: 49, 42, 35, _____, _____

5. Add 10: 213; 223; 233; _____; _____
6. Subtract 8: 92, 84, 76, _____, _____

For 7–12, use the rule to fill in the missing number in each pattern.

7. Add 3
   41, 44, _____, 50

8. Subtract 10
   429, 419, 409, _____

9. Add 6
   11, _____, 23, 29

10. Add 7
    1, _____, 15, 22

11. Subtract 2, Add 3
    6, 4, 7, _____, _____

12. Add 2, Subtract 4
    10, 12, 8, _____, _____
13. **MP.5 Use Appropriate Tools**  Emily buys a sandwich, a salad, and a drink. If she gives the cashier $20, how much change will she receive? Use bills and coins to solve.

<table>
<thead>
<tr>
<th>Item</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sandwich</td>
<td>$5.75</td>
</tr>
<tr>
<td>Salad</td>
<td>$3.25</td>
</tr>
<tr>
<td>Drink</td>
<td>$1.45</td>
</tr>
</tbody>
</table>

14. Mimi started a pattern with 5 and used the rule “Add 10.” What are the first five numbers in Mimi’s pattern? Describe the numbers in the sequence.

15. **MP.2 Reasoning**  Jack arranged the pencils in groups of 6 to make a pattern. His rule is “Add 6.” His starting number is 6. What are the next 4 numbers in Jack’s pattern?

16. Presidential elections are held every 4 years. There were Presidential elections in 1840, 1844, 1848, and 1852. When were the next three Presidential elections? Describe a feature of the pattern.

17. **Higher Order Thinking**  Sarah created a pattern. Her rule was “Add 4.” All the numbers in Sarah’s pattern were odd. Three of the numbers in Sarah’s pattern were less than 10. What was the starting number for Sarah’s pattern?

18. The house numbers on Carr Memorial Avenue follow a pattern. The first four houses on the left side of the street are numbered 8, 14, 20, and 26. The rule is “Add 6.” How many more houses are on the left side of the street with numbers less than 50?

   - A. 1 house
   - B. 2 houses
   - C. 3 houses
   - D. 4 houses

19. Noreen is training for a race. The first week she runs the route in 54 minutes. The second week, she runs the route in 52 minutes. The third week, she runs the route in 50 minutes. Noreen runs 2 minutes faster each week. If the pattern continues, how many minutes will it take Noreen to run the route the fifth week?

   - A. 44 minutes
   - B. 46 minutes
   - C. 48 minutes
   - D. 50 minutes
1. A **rule** is a mathematical phrase that tells how numbers in a pattern are related.
   What is the rule for the number pattern at the right?
   The rule for the pattern is “________ 3.”

2. An **even number** is a whole number that can be divided by 2 with none left over. An **odd number** is a whole number that cannot be divided by 2 with none left over.
   Which numbers in the pattern above are even? ______________
   Which numbers in the pattern above are odd? ______________

3. Continue the pattern below to find the next two numbers.
   28, 26, 24, 22, …
   The rule is “Subtract 2.” Subtract 2 from the last number in the pattern.
   22 − _____ = 20  28, 26, 24, 22, _____ …
   Subtract 2 again from 20 to find the next number in the pattern.
   28, 26, 24, 22, 20, ______

4. To describe a feature of the pattern, look for properties that are common to the numbers in the pattern.
   Are the numbers odd or even in the pattern in Exercise 3? ______
   Are the numbers a multiple of a whole number? ______
   Two features of the pattern are that all the numbers are ______ and the numbers are multiples of ______.

**On the Back!**

5. Continue the pattern. The rule is “Add 6.” Describe a feature of the pattern.
   3, 9, 15, 21, ______, ______
Nonfiction Reading Test

Seat Belts

Directions: Read the following passage and answer the questions that follow. Refer to the text to check your answers when appropriate.

"Click!" That's the sound of safety. That's the sound of survival. That's the sound of a seat belt locking in place. Seat belts save lives and that's a fact. That's why I don't drive anywhere until mine is on tight. Choosing to wear your seat belt is as simple as choosing between life and death. Which one do you choose?

Think about it. When you're driving in a car, you may be going 60 MPH or faster. That car is zipping down the road. Then somebody ahead of you locks up his or her brakes. Your driver doesn't have time to stop. The car that you are in crashes. Your car was going 60 miles per hour. Now it has suddenly stopped. Your body, however, is still going 60 MPH. What's going to stop your body? Will it be the windshield or your seat belt? Every time that you get into a car you make that choice. I choose the seat belt.

Some people think that seat belts are uncool. They think that seat belts cramp their style, or that seat belts are uncomfortable. To them I say, what's more uncomfortable? Wearing a seat belt or flying through a car windshield? What's more uncool? Being safely anchored to a car, or skidding across the road in your jean shorts? Wearing a seat belt is both cooler and more comfortable than the alternatives.

Let's just take a closer look at your choices. If you are not wearing your seat belt, you can hop around the car and slide in and out of your seat easily. That sounds like a lot of fun. But, you are also more likely to die or suffer serious injuries. If you are wearing a seat belt, you have to stay in your seat. That's no fun. But, you are much more likely to walk away unharmed from a car accident. Hmmm... A small pleasure for a serious pain. That's a tough choice. I think that I'll avoid the serious pain.

How about giving money away? Do you like to give your money away? Probably not. And when you don't wear your seat belt, you are begging to give your money away. That's because kids are required to wear seat belts in every state in America. If you're riding in a car, and you don't have a seat belt on, the police can give you or your driver a ticket. Then you will have to give money to the city. I'd rather keep my money, but you can spend yours how you want.

Wearing a seat belt does not make you invincible. You can still get hurt or killed while wearing your seat belt. But wearing them has proven to be safer than driving without them. You are much less likely to be killed in a car wreck if you are wearing a seat belt. You are much less likely to get seriously injured if you are wearing one. So why not take the safer way? Why not go the way that has been proven to result in fewer deaths? You do want to live, don't you?
1. Which title best expresses the main idea of this text?
   a. Car Accidents: Ways That We Can Prevent Them
   b. Slow Down: Save Lives By Driving Slower
   c. Seat Belts: Wear Them to Survive Any Wreck
   d. Why Not? Improve Your Odds with Seat Belts

2. Which best expresses the author's main purpose in writing this text?
   a. To inform readers about seat belt laws
   b. To persuade readers to wear seat belts
   c. To entertain readers with stories and jokes about seat belts
   d. To describe what car accidents are like without seat belts

3. Which best describes the text structure in the fourth paragraph?
   a. Compare and contrast
   b. Chronological order
   c. Sequential order
   d. Problem and solution

4. Which best defines the word alternatives as it is used in the third paragraph?
   a. Being safe
   b. Being unsafe
   c. Other choices
   d. Driving fast

5. Which best expresses the main idea of the fifth paragraph?
   a. Seat belts are a waste of money.
   b. People don't like to give money away.
   c. Not wearing a seat belt may cost you.
   d. Seat belt laws save lives.

6. Which best defines the word invincible as it is used in the last paragraph?
   a. Uncool
   b. Difficult or impossible to see
   c. Glow-in-the-dark
   d. Unable to be harmed

7. Which statement would the author most likely agree with?
   a. Being safe is more important than being cool.
   b. Moving freely around a car is worth the risks.
   c. Seat belts will keep you safe in any car accident.
   d. You should be most concerned with your comfort.

8. Which argument is not made by the author?
   a. Not wearing a seat belt can be expensive.
   b. Penalties for not wearing a seat belt should increase.
   c. Seat belts keep you from flying through the windshield.
   d. Wearing a seat belt is cooler than suffering an injury.
9. Which statement would the author most likely disagree with?
   a. Seat belts save lives.
   b. Every state in America has seat belt laws.
   c. You shouldn't drive anywhere until you are wearing your seat belt.
   d. Seat belts increase your chances of being injured in a car wreck.

10. Which best explains why the author starts his essay with the word *click*?
    a. He is trying to scare readers.
    b. He is trying to get the reader's attention.
    c. He is trying to remind readers how seat belts sound when clasped.
    d. He is trying to describe what it's like to ride in a car.
Nonfiction Reading Comprehension Test
Hummingbirds

Directions: Read the following passage and answer the questions that follow. Refer to the text to check your answers when appropriate.

Have you ever heard the sound of a hummingbird? They make a buzzing noise when they fly. They make this noise because they beat their wings so fast. They beat their wings up to 80 times a second. All that flapping makes a lot of noise. That's why we call them hummingbirds.

Hummingbirds fly in a unique way. They move their wings so fast that they can hover. This means that they can stay in one spot in the middle of the air, like a helicopter. Sometimes they fly or hover upside down. They are the only bird that flies backward.

Hummingbirds are small. One type called the bee hummingbird is the smallest bird in the world. Bee hummingbirds weigh less than a penny. They are just a little bit bigger than bees. I guess that's where they get their name.

Bee hummingbirds build tiny nests. They use cobwebs and bits of bark to make their homes. Their homes are only an inch around. This is big enough for their eggs though. Their eggs are smaller than peas. People have found these tiny nests on a clothespin.

Hummingbirds move fast. It takes lots of energy to move as fast as they do. This means that they need to eat a lot of food. Their favorite food is nectar, a sweet liquid inside of some flowers. They drink more than their own weight in nectar daily. They have to visit hundreds of flowers to get enough nectar to live. They can only store enough energy to survive through the night. They live on the edge.

Hummingbirds don't use their long beaks like straws. They have a tongue just like you. They use their tongues for eating. They flick their tongues in and out of their mouths while inside of flowers. They lap up nectar. Flowers give them the energy that they need.

Hummingbirds help flowers too. They get pollen on their heads and bills when they feed. Flowers use pollen to make seeds. Hummingbirds help pollen get from one flower to the next. This helps flowers make more seeds. More seeds means more flowers. More flowers means more food for hummingbirds. Isn't it nice how that works out?
1. Why are they called hummingbirds?
   a. They are very light  
   b. They sing when they fly  
   c. Their wings make a humming sound  
   d. Their song sounds like humming

2. How do hummingbirds eat?
   a. They drink nectar through their beaks like a straw.  
   b. They chew up flower petals with their beaks.  
   c. They use their heads and bills to eat pollen.  
   d. They lap up nectar with their tongues.

3. How do hummingbirds help flowers?
   a. They drink nectar.  
   b. They eat pollen.  
   c. They bring pollen from one flower to the next.  
   d. They plant seeds.

4. According to the text, which does the bee hummingbird use to make nests?
   a. straw  
   b. concrete  
   c. bark  
   d. sticks

5. Which best describes the main idea of the fifth paragraph?
   a. Hummingbirds move fast.  
   b. Hummingbirds like to eat nectar.  
   c. Hummingbirds use lots of energy and eat often.  
   d. Hummingbirds drink their own weight in nectar every day.

6. Which statement about bee hummingbirds is not true?
   a. Bee hummingbird eggs are smaller than peas.  
   b. Bee hummingbirds weigh less than a penny.  
   c. Bee hummingbirds have built nests on clothespins.  
   d. Bee hummingbirds do not grow larger than bees.

7. What is unique about the way that hummingbirds fly?
   a. They can fly faster than any other bird.  
   b. They can fly longer than any other bird.  
   c. They can fly forward and backward.  
   d. They can only fly for a few seconds at a time.

8. Which best defines the word hover as used in paragraph two?
   a. To stay in one spot in the air  
   b. To clean an area thoroughly  
   c. An animal that has hooves  
   d. To move your wings very fast

9. Why do flowers need pollen?
   a. Flowers eat pollen.  
   b. Pollen attracts hummingbirds.  
   c. Hummingbirds eat pollen.  
   d. Flowers use pollen to make seeds.

10. Which title best describes the main idea of this text?
   a. Bee Hummingbirds: The World's Smallest Bird  
   b. Pollination: How Birds and Flowers Work Together  
   c. Hummingbirds: Unique and Uniquely Helpful  
   d. Interesting Facts About Birds
Setting Worksheet 1

Directions: Read each passage and look for clues that reveal the setting. Then explain your answer. Remember the setting is the time and place that a story happens.

Alex shut the lid to his laptop with a loud clap. Some of the people sitting at the tables near him looked up from their books and gave him annoyed looks. Alex realized that he had disturbed them and held up his hand apologetically. The librarian turned toward him and shushed him loudly, perhaps louder than the noise that he had made. Alex put the laptop in his bag and began walking toward the door. He held his head down low.

1. Where is this story taking place? ______________________________________________________
   How do you know?

2. When is this story taking place? _______________________________________________________
   How do you know?

Vance Powers grabbed the control stick. Up until now he had been a prisoner on this spaceship, but even the captain knew that Vance was the only one who could navigate through an asteroid belt. "Quick! Take these laser cuffs off!" The captain and the guard looked at one another hesitantly. Boom! The ship skidded off a large asteroid. "Now! Take the cuffs off! There's no time!" Vance shouted at the men. The captain gave the guard a slight nod. The guard waved the magnetic key over the laser cuffs on Vance's wrists. The cuffs powered down and fell off of Vance's wrists. Suddenly Vance had full control of his arms again. Vance tested the movement of his arms by disarming the guard and slapping the laser cuffs on him in one swift motion. Vance Powers was back.

3. Where is this story taking place? ______________________________________________________
   How do you know?

4. When is this story taking place? _______________________________________________________
   How do you know?

Sir Anders frowned at his squire, Toby. Toby looked back worriedly. He was eager to please Sir Anders but he didn't know how. "Well, Toby, do you want me to put the saddle on myself?" A bolt of realization struck Toby. He grabbed a saddle of the wall and began apologizing, "Why of course not, Sir Anders. What was I thinking?" Toby awkwardly tried to get the saddle on Sir Ander's white stallion. "Let me just grabbed the belt here and uh... Ah!" Toby was muttering to himself when Sir Ander's horse turned suddenly and knocked him into a pile of hay. Sir Anders could not help but to crack a slight smile at this scene. As Toby brushed off the hay, Sir Anders consoled him, "He knows that you're scared, Toby. Grab the bridle off of the wall, help me remove my armor, and I'll show you how it's done."
The party stopped at a small brook. The woman who was leading the party whispered, "Ok, if anybody's thirsty, this be a good time to drink. We keep moving from here to the next station." This wind blew through the thick trees. A young boy in the back of the party looked up at an older man and asked, "Is we really gonna be free?" The old man sighed, as if he could not believe it himself. "You see that star up dere? Dat's the North Star. We keep following that, and Miss Tubman up dere," he said gesturing to the woman leading the party. He continued, "We'll be free alright." The boy smiled, and then something else occurred to him. He looked up at the old man and said, "Well, what if we run into dem slave catchers?" The old man scratched his head and said, "Don't let'em catch you."

"I want Sugar Loops!" Tommy screamed at his mother. She shook her head in distress and then responded, "Look, Tommy. That's not how you ask for anything, and we've already gone over this. You can have Bran Flakes or Dry Os. No Sugar Loops." Tommy shook his head back and forth violently. He then laid down on floor and started kicking his feet and screaming. Clearly he did not accept this answer. Mom grabbed her phone out of her purse. "Tommy, if you stop this tantrum and get back in the cart, I'll let you watch Tatakai Fighting Warriors on my phone." Tommy looked up excitedly and began gathering himself off of the floor. Mom put the box of Sugar Loops back on the shelf and tossed the Dry Os into the cart.