



7TH GRADE SUMMER PACKET



Math Review Packet for 7th – 8th Grades

Find the sum or difference.

1. $60 + 17$ 2. $77 + 68$ 3. $44 + (-23)$ 4. $84 + (-42)$
 5. $-10 + (-82)$ 6. $85 + (-59)$ 7. $-33 + (-9)$ 8. $-6 + (-30)$
 9. $10 + (-28) + (-3)$ 10. $40 + 81 + (-17)$ 11. $10 + (-30) + 32$ 12. $-20 + (-40)$

Find the product or quotient.

13. $60 \div 12$ 14. $-44 \div (-2)$ 15. $10 \div (-2)$
 17. $-10 \div (-4)$ 18. $10 \div (-4)$ 19. $3 \div (-9)$ 20. $7 \div 14$
 21. $-25 \div (-80) \div 22$ 22. $-25 \div 80 \div (-80)$ 23. $25 \div (-10) \div (-10)$ 24. $10 \div 10$

Evaluate the numerical expression. (Be sure to use the order of operations.)

25. $-75 \div (-2) \div (-2)$ 26. $43 \div 6 \div (-3) \div 60$ 27. $44 \div (-4) \div 11$
 28. $-10 \div (-8) \div 3 \div (-4)$ 29. $-25 \div (-40) \div (-40)$ 30. $24 \div 4 \div (-20)$

Operations with Integers

Adding Integers

- Negative + Negative:** Add the absolute values of the two numbers and make the answer negative.
 ex: $-5 + (-9) \rightarrow 5 + 9 = 14 \rightarrow$ answer: -14
- Negative + Positive (or Positive + Negative):** Subtract the absolute values of the two numbers (larger minus smaller) and take the sign of the number with the greater absolute value.
 ex: $-7 + 12 \rightarrow 12 - 7 = 5 \rightarrow 12 > 7$, so answer is positive \rightarrow answer: 5
 ex: $6 + (-9) \rightarrow 9 - 6 = 3 \rightarrow 9 > 6$, so answer is negative \rightarrow answer: -3

Subtracting Integers

- Keep the first number the same, change the subtraction sign to an addition sign, and change the sign of the second number. Then use the integer addition rules.
 ex: $-3 - 9 \rightarrow -3 + (-9) = -12$
 ex: $15 - (-8) \rightarrow 15 + 8 = 23$
 ex: $-6 - (-2) \rightarrow -6 + 2 = -4$

Multiplying & Dividing Integers

Ignore the signs and multiply or divide as usual. Then determine the sign of the answer using the following rules:

- Negative \cdot or \div Negative = Positive
- Negative \cdot or \div Positive (or Positive \cdot or \div Negative) = Negative

ex: $-3 \cdot (-2) \rightarrow 3 \cdot 2 = 6 \rightarrow$ neg \cdot neg = pos \rightarrow answer: 6
 ex: $16 \div (-4) \rightarrow 16 \div 4 = 4 \rightarrow$ pos \div neg = neg \rightarrow answer: -4

Order of Operations

Parentheses
 Exponents
 Multiplication & Division (left to right)
 Addition & Subtraction (left to right)

Solve the proportion.

77. $\frac{5}{6} = \frac{20}{24}$ 78. $\frac{3}{7} = \frac{6}{14}$ 79. $\frac{8}{9} = \frac{24}{27}$
 80. $\frac{3}{4} = \frac{9}{12}$ 81. $\frac{10}{15} = \frac{20}{30}$ 82. $\frac{15}{20} = \frac{30}{40}$
 83. $\frac{20}{30} = \frac{40}{60}$ 84. $\frac{25}{50} = \frac{50}{100}$

Percent Problems

85. 6 is 75% of what number? 87. 10 is what percent of 200? 88. What is 20% of 60?
 89. Find 22.5% of 81 90. A car covers 8 on 100 for 200 mi. Find the mile per gallon. 92. Find the total price of a \$100 shirt including the 7% sales tax.

Integers, Rational Numbers, Equations, Proportions, Percent, & Geometry

Math
in the
Middle



Find the sum or difference.

1. $-80 + 77$	2. $77 + 160$	3. $-64 + (-33)$	4. $104 - (-92)$
5. $-105 - (-122)$	6. $185 - (-154)$	7. $-53 - (-59)$	8. $-6 + (-35)$
9. $15 - (-26) - (-39)$	10. $-93 + 191 + (-179)$	11. $18 + (-34) + 52$	12. $-50 - (-93) + (-17)$

Find the product or quotient.

13. $-60 \div 12$	14. $-194 \div (-2)$	15. $88 \cdot (-2)$	16. $-12 \cdot 10$
17. $-10 \cdot (-11)$	18. $90 \div (-6)$	19. $3 \cdot (-59)$	20. $-7 \cdot (-2)$
21. $-28 \cdot (-6) \div (-24)$	22. $-56 \cdot 14 \div (-8)$	23. $108 \div (-12) \cdot (-12)$	24. $-4 \cdot (-17) \div 2$

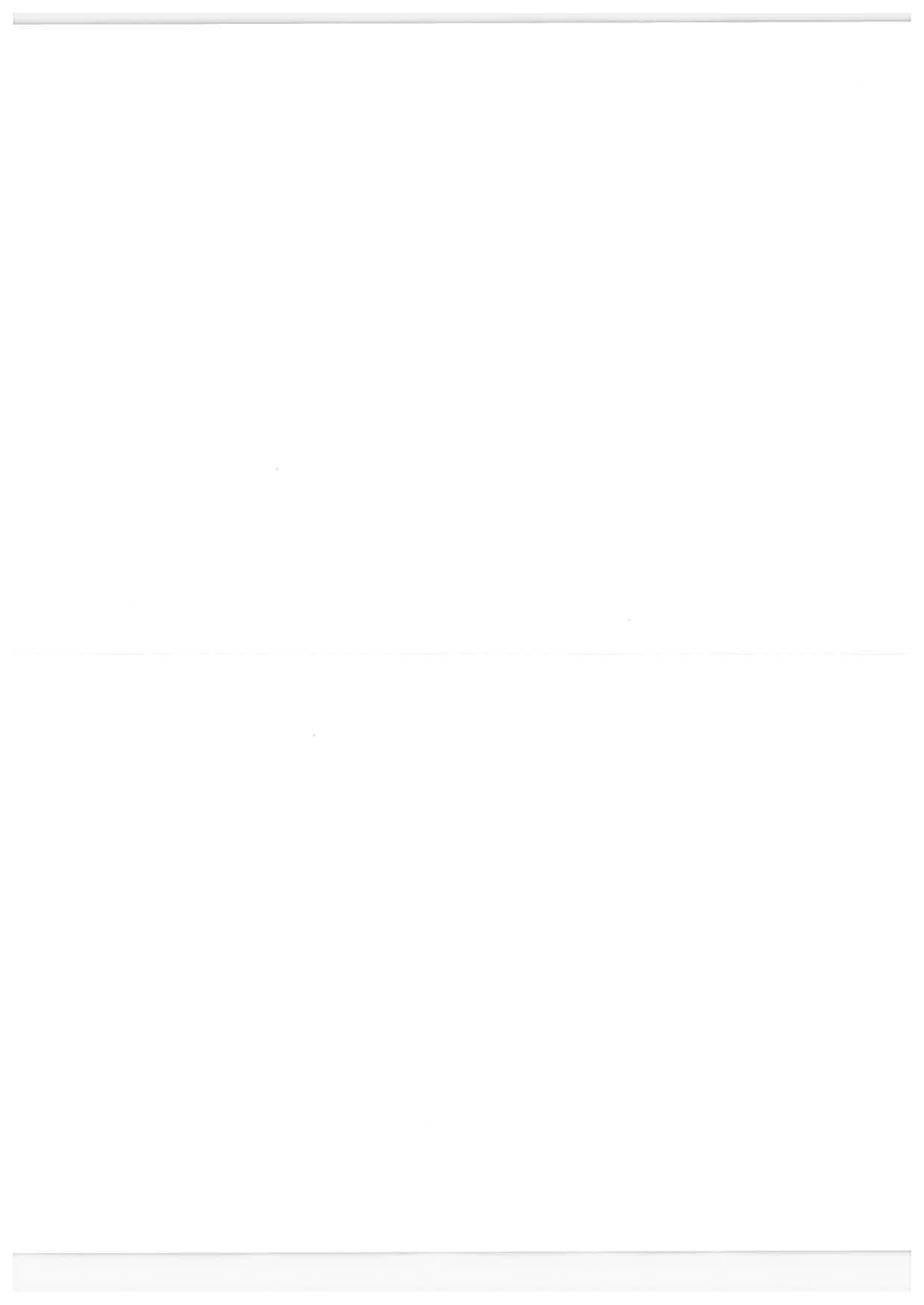


Find the sum, difference, product, or quotient.

25. $38.61 + 36.841$	26. $1.755 - 1.23$	27. $0.71 \cdot 9.2$	28. $13.12 \div 0.1$
29. $3.651 - (-12.63)$	30. $-3.9 + (-7.6)$	31. $-14.846 \div 2.6$	32. $6 \cdot (-16.7)$
33. $26.474 - 14.527$	34. $-2.1 + 3.78$	35. $-6.15 \div (-8.2)$	36. $-12.8 \cdot (-4.88)$

Find the sum, difference, product, or quotient. Write your answer in simplest form.

37. $15\frac{1}{2} + 15\frac{1}{4}$	38. $18\frac{11}{20} - 17\frac{1}{2}$	39. $3\frac{3}{7} \div 5\frac{1}{3}$	40. $4\frac{1}{2} \cdot 2\frac{2}{5}$
41. $3\frac{1}{3} - 5\frac{1}{9}$	42. $5 \cdot \left(-1\frac{2}{5}\right)$	43. $-7\frac{3}{5} + \left(-3\frac{5}{6}\right)$	44. $-2\frac{1}{12} \div \frac{3}{8}$
45. $9 \div \left(-4\frac{1}{2}\right)$	46. $-18 + 3\frac{4}{5}$	47. $2\frac{5}{6} \cdot \left(-2\frac{2}{3}\right)$	48. $-4\frac{7}{10} - 3\frac{2}{5}$



Evaluate the numerical expression. Be sure to use the order of operations!

49. $78 + (-2) \cdot (-56)$	50. $-65 + \frac{6}{-3} + 40$	51. $-94 - [2 - 3(24 - 12)]$	52. $43 + (-23) - (-57)$
53. $-15 - (-11) + 5 \cdot (-4)^3$	54. $-26 - (-64) + (-3)^4$	55. $-84 \div 4 + (-20)$	56. $-56 + (-50) + (-7) \cdot (-6)$
57. $-7.6 - 3 + 2.1 \cdot (-8)$	58. $-\frac{2}{3} + \frac{5}{6} \div \frac{1}{2}$	59. $-8 + 3(-2.7 + 4.23)$	60. $-3\frac{1}{2} \cdot \left(-2\frac{3}{4}\right) + \left(-4\frac{1}{4}\right)$

Evaluate the algebraic expression for $a = -12$, $b = 6$, $c = -4$, and $d = 3$.

61. $a - b + c$	62. $b - cd$	63. $b(cd - a)$
64. $\frac{b}{c} - d$	65. $bd + ac$	66. $\frac{a}{d} + c^2$



Solve the one-step equation.

67. $19 + j = -34$	68. $m - 26 = 13$	69. $\frac{x}{5} = -3$	70. $12f = 216$
71. $g - (-31) = -7$	72. $\frac{h}{q} = 13$	73. $b + (-3) = -9$	74. $-4w = -280$

Solve the two-step equation.

75. $5m - 3 = 27$	76. $7 + \frac{y}{2} = -3$	77. $4 + 3r = -8$	78. $\frac{1}{2}p - 4 = 7$
79. $\frac{k + 8}{3} = -2$	80. $\frac{f}{5} - (-13) = 12$	81. $-15 - \frac{g}{3} = -5$	82. $-8 + 4m = 2$
83. $-18 - \frac{3}{4}v = 3$	84. $\frac{-5 + n}{4} = -1$	85. $3.5m + 0.75 = -6.25$	86. $2y + 3 = 19$



Convert to a unit rate.

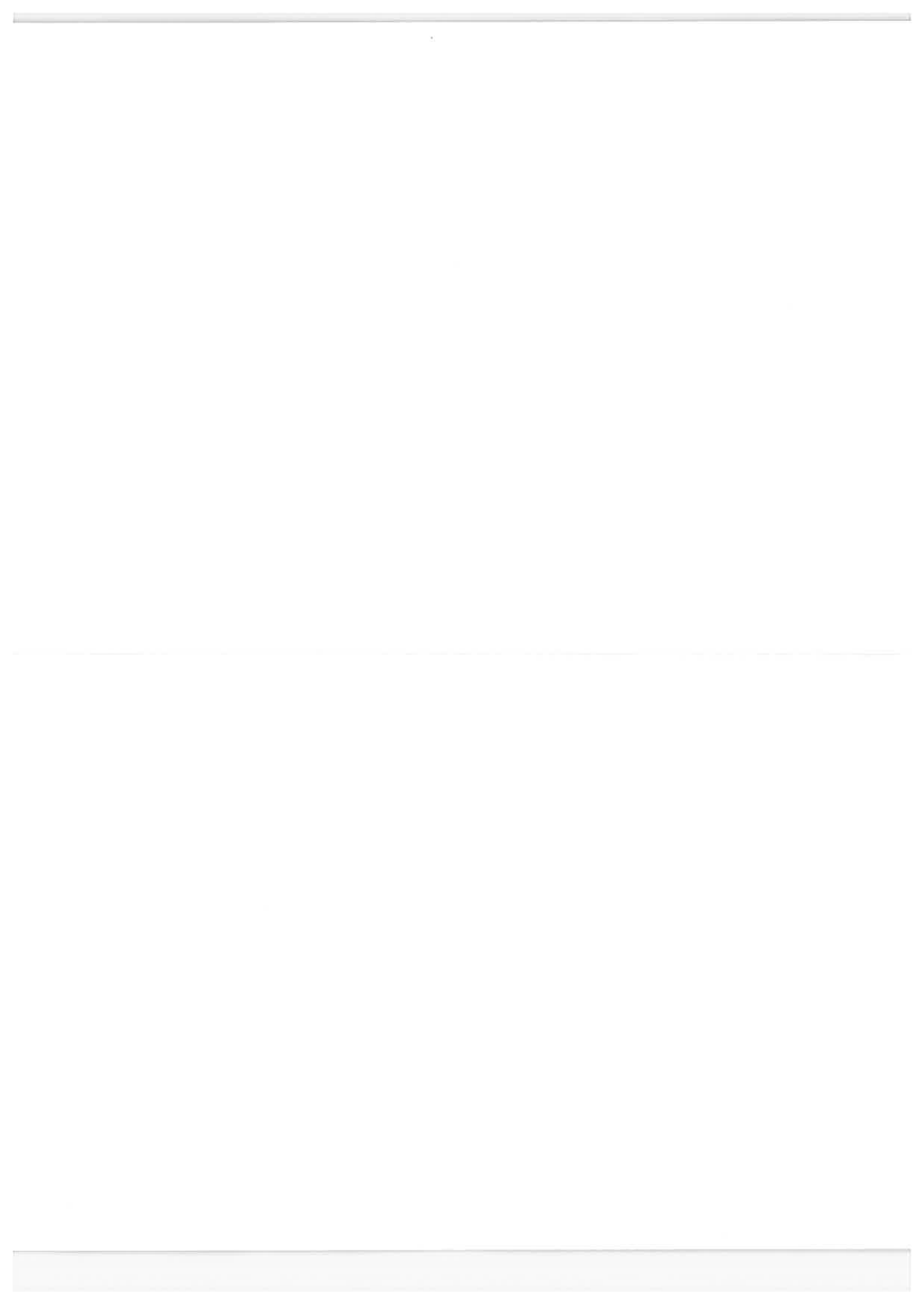
87. $\frac{513 \text{ miles}}{9 \text{ hours}}$	88. $\frac{180 \text{ words}}{5 \text{ minutes}}$	89. $\frac{\$2.53}{8 \text{ oz}}$
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Solve the proportion.

90. $\frac{h}{6} = \frac{20}{24}$	91. $\frac{5}{7} = \frac{c}{14}$	92. $\frac{6}{8} = \frac{21}{b}$	93. $\frac{30}{j} = \frac{26}{39}$
94. $\frac{5}{k} = \frac{15}{20}$	95. $\frac{32}{112} = \frac{a}{14}$	96. $\frac{16}{7} = \frac{18}{g}$	97. $\frac{w}{60} = \frac{15}{200}$

Use a proportion to solve the word problem.

98. A cookie recipe calls for 2 eggs and 3 cups of flour. You only have 1 egg, so you have to cut the recipe. How much flour should you use?	99. Jack can run 2 miles in 15 minutes. At that rate, how far would you expect him to run in an hour?	100. Sue read 15 pages of her book in 25 minutes. At that rate, how long will it take her to read the next 10 pages?	101. The ratio of cats to dogs at the park was 1:4. If there were 12 dogs, how many cats were at the park?
102. If 2 pounds of apples cost \$2.60, how much would 5 pounds of apples cost?	103. If you burn 184 calories running 2 miles, how many calories would you burn if you run 5 miles?	104. In a shipment of 300 parts, there are 12 defective parts. How many defective parts would you expect to find in a shipment of 1,000 parts?	105. The ratio of 12-year-olds to 13-year-olds in Mr. Wu's class is 5:3. If there are 24 students in the class how many students are 13 years old?



Name: _____

Grammar, Writing, and Comprehension Practice
Grade 7 Mrs. Loster ELA

Reading Passage

A city planner proposed adding protected bike lanes to improve safety and encourage cycling. The lanes would be separated from traffic by barriers and include clear signage. Planners hoped the changes would reduce accidents, lower emissions, and make short trips easier for residents.

Fill in the Blank

Fill in the blank with the correct words:[Word Bank]: signage, traffic, safer, bike, easier

1. The city planner proposed adding protected _____ lanes.
2. The lanes would be separated from _____ by barriers.
3. Clear _____ would help cyclists and drivers navigate.
4. Planners hoped the changes would reduce _____.
5. Adding lanes could make short trips _____ for residents.

[Word Bank]: signage, traffic, safer, bike, easier

Multiple Choice Questions: Choose the correct answer from the choices for each question:

1. What type of lanes were proposed?
 - A. Carpool lanes
 - B. Bus lanes
 - C. Protected bike lanes
 - D. Train tracks



2. How would the bike lanes be separated from traffic?

- A. By barriers
- B. By paint only
- C. By mirrors
- D. By water

3. What would clear signage do?

- A. Confuse drivers
- B. Help cyclists and drivers navigate
- C. Paint the road
- D. Increase noise

4. Which outcome did planners hope to achieve?

- A. Increase accidents
- B. Reduce accidents
- C. Ban bicycles entirely
- D. Close streets permanently

5. What environmental benefit was expected?

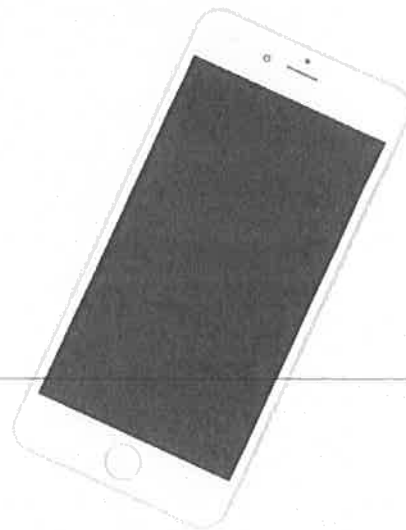
- A. Increase emissions
 - B. Lower emissions
 - C. Create more pollution
 - D. Produce noise
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Cell Phones in Schools

As smartphones become more and more common, the debate about whether students in schools should be able to use them rages on. Some say that cell phones can be used for positive reasons like research and student safety. Students can use their phones for many productive purposes: using the calculator, looking up the definitions of words, organizing their assignments in a calendar, and using apps to study. They also argue that allowing students to use cell phones in school prepares students for adult life, in which they will use technology daily.



Teachers, however, argue that phones are too distracting. They say that kids are often too tempted to play games, text each other, and take pictures during instructional time. They can also cheat on assignments by looking up the answers online. Teachers do not trust that students will use their phones responsibly or appropriately if they have them. They believe that phones are too much of a distraction and take away from a student's overall education.

Use the RACE strategy to answer the following question, using the checklist as you write.
Do you think kids should have phones? Explain using reasons from the text.

<hr/>	<input type="checkbox"/>	R
<hr/>	<input type="checkbox"/>	A
<hr/>	<input type="checkbox"/>	C
<hr/>	<input type="checkbox"/>	E



Name _____ Date _____

Prefixes: pre-, re-, un-, mis-

Circle the best prefix to add to each base word. Write the word on the line. Then write the meaning of the new word.

<u>Prefix</u>	<u>Base</u>	<u>New Word</u>	<u>Meaning</u>
pre- mis-	heat	_____	_____
un- re-	read	_____	_____
re- mis-	lead	_____	_____
pre- un-	view	_____	_____
un- mis-	spell	_____	_____

Use a prefix and a base word to write a word for each definition below.

1. To teach something before _____
2. To take a test over again _____
3. To put something in the wrong place _____
4. To write something again _____
5. Not afraid _____
6. To do the opposite of lock _____
7. Not equal _____
8. To pay for something beforehand _____
9. To behave the wrong way _____
10. To make something again _____



Name _____ Date _____

Suffixes: -able, -less, -ful, -ly

Circle the best suffix to add to each base word. Write the word on the line. Then write the meaning of the new word.

<u>Base</u>	<u>Suffix</u>		<u>New Word</u>	<u>Meaning</u>
fold	-able	-ly	_____	_____
cheer	-ly	-ful	_____	_____
pain	-able	-less	_____	_____
quiet	-ly	-able	_____	_____
taste	-ly	-less	_____	_____

Use a suffix and a base word to write a word for each definition below.

1. Something that is full of color _____
2. In a loud way _____
3. Without weight; really light _____
4. Able to bend _____
5. Being without fear _____
6. In a sad way _____
7. Able to be stretched _____
8. Full of respect _____
9. Able to be printed _____
10. Without a care _____



HIDING IN PLAIN SIGHT



Red- Eyed Tree Frog

Have you ever wished you could melt into the background? Or find a way to hide so no one would notice you? That's an adaptation that some animals possess. They have ways of blending into their surroundings so that they can avoid being eaten by predators, or so they can sneak up on prey of their own!

The Red-Eyed Tree Frog lives in the rainforests. This small frog has bright green skin that perfectly blends in with tree leaves. It has sticky toe pads

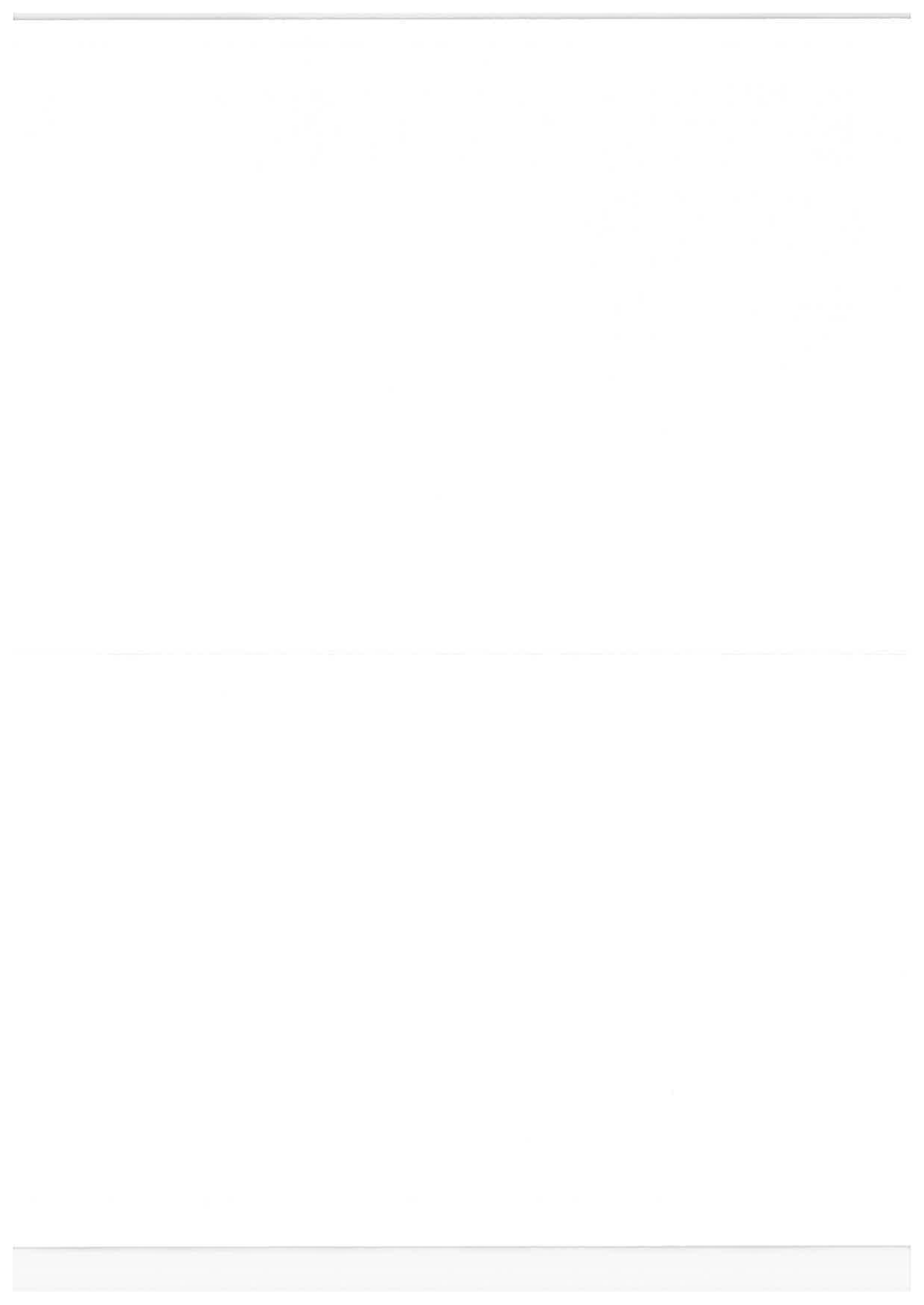
that allow it to cling to the underside of the green leaves. It becomes completely hidden. In spite of this camouflage, predators may still find it. That's when the frog's bulging red eyes help! When they flash their startling red eyes, the sudden change scares the predators. This revealing action makes the predators run away!

There are several fish, such as the Stonefish and Flounder, who also blend into their surroundings. The Stonefish has skin that looks bumpy and textured. It resembles the stone on the ocean floor. Predators swim right past this guy! Prey might try to swim past, too. The Stonefish will suddenly dart out from its hiding place to snatch smaller sea life. Flounder use similar tricks, though they have skin that is speckled to resemble the pebbles and stones on the bottom of the ocean floor. They snuggle into the rocky stretches and wait for prey. When sea worms or shrimp pass by, the Flounder springs into action to catch its dinner.

There are quite a few reptiles, amphibians, and fish that have the ability to camouflage. Many mammals have fur that is designed to help them remain unnoticed by predators. In the case of birds, females are often plainer than the males. The male may attract more attention from predators. This risk has a benefit. Brightly colored males may also use their fine feathers to gain mates.

One of the mammals who excels at hiding in plain sight is the Arctic Fox. This animal is snowy white. It lives on the frozen tundra. With constant snowy climate, the Arctic Fox's white coat conceals him perfectly. The coat is also thick to help the fox survive the cold temperatures.

Humans have learned a lot from the animals in our world. Clothes for hunters are now made in camouflage patterns, so that humans can blend into the forest and hunt their prey. Military uniforms have patterns that help soldiers stay safe from enemies. They have specific designs for areas of desert, mountain, and vegetation. However, no matter how much humans try, they will never be as skilled as animals at physical adaptations. They may wear outfits to help us hide, but some animals are always in disguise!



HIDING IN PLAIN SIGHT

RI.1

Use evidence from the text to find the correct answer. Then, fill in the bubble of the correct answer.

- 1. What is one purpose of the adaptation of animal camouflage?**
 - Ⓐ to help them stand out
 - Ⓑ to help them avoid predators
 - Ⓒ to keep them from looking alike
 - Ⓓ to tell other animals to watch out
- 2. Why are female birds not as brightly colored as the males?**
 - Ⓐ so they won't attract predators
 - Ⓑ because the males would feel self-conscious if they had dull feathers
 - Ⓒ because female birds would scare their chicks if they are brightly colored
 - Ⓓ because their mates prefer the duller colors
- 3. In what way does Red-Eyed Tree Frog's adaptation protect them against predators?**
 - Ⓐ Green skin has a calming effect.
 - Ⓑ Lighter bellies are intimidating.
 - Ⓒ Bright red eyes flash to scare predators.
 - Ⓓ Rapid movements startle predators.
- 4. How do the Stonefish and Flounder blend into their environment?**
 - Ⓐ They look like other fish.
 - Ⓑ Their eyes reflect the color of the water.
 - Ⓒ Their shape makes them look like coral.
 - Ⓓ Their skin resembles stones and pebbles.
- 5. What is not one way that humans are using camouflage in the passage?**
 - Ⓐ using it to hide from large predators
 - Ⓑ using it to hide from military enemies
 - Ⓒ using it to hunt prey
 - Ⓓ using it to blend in different environments
- 6. What is another purpose of the adaptation of animal camouflage?**
 - Ⓐ to make it easier to change environments
 - Ⓑ to make them more confident
 - Ⓒ to help them attack prey
 - Ⓓ to give other animals an advantage
- 7. How have humans been influenced by animals' adaptations?**
 - Ⓐ They make more brightly-colored clothes to stand out.
 - Ⓑ They start dancing around potential mates to be more like birds.
 - Ⓒ They try to stay on the bottom of the ocean so sharks don't notice them.
 - Ⓓ They create military uniforms and hunting outfits in camouflage patterns.
- 8. What adaptations do mammals rely on for camouflage?**
 - Ⓐ feathers
 - Ⓑ fur
 - Ⓒ spikes
 - Ⓓ tentacles
- 9. What would be a perfect "blending in" outfit to be camouflaged in a grassy region?**
 - Ⓐ green colors
 - Ⓑ bright red
 - Ⓒ large spots
 - Ⓓ a gray, rocky pattern
- 10. What type of climate is in a tundra?**
 - Ⓐ warm and tropical
 - Ⓑ hot and dry
 - Ⓒ cold, freezing temperatures
 - Ⓓ wet and warm

