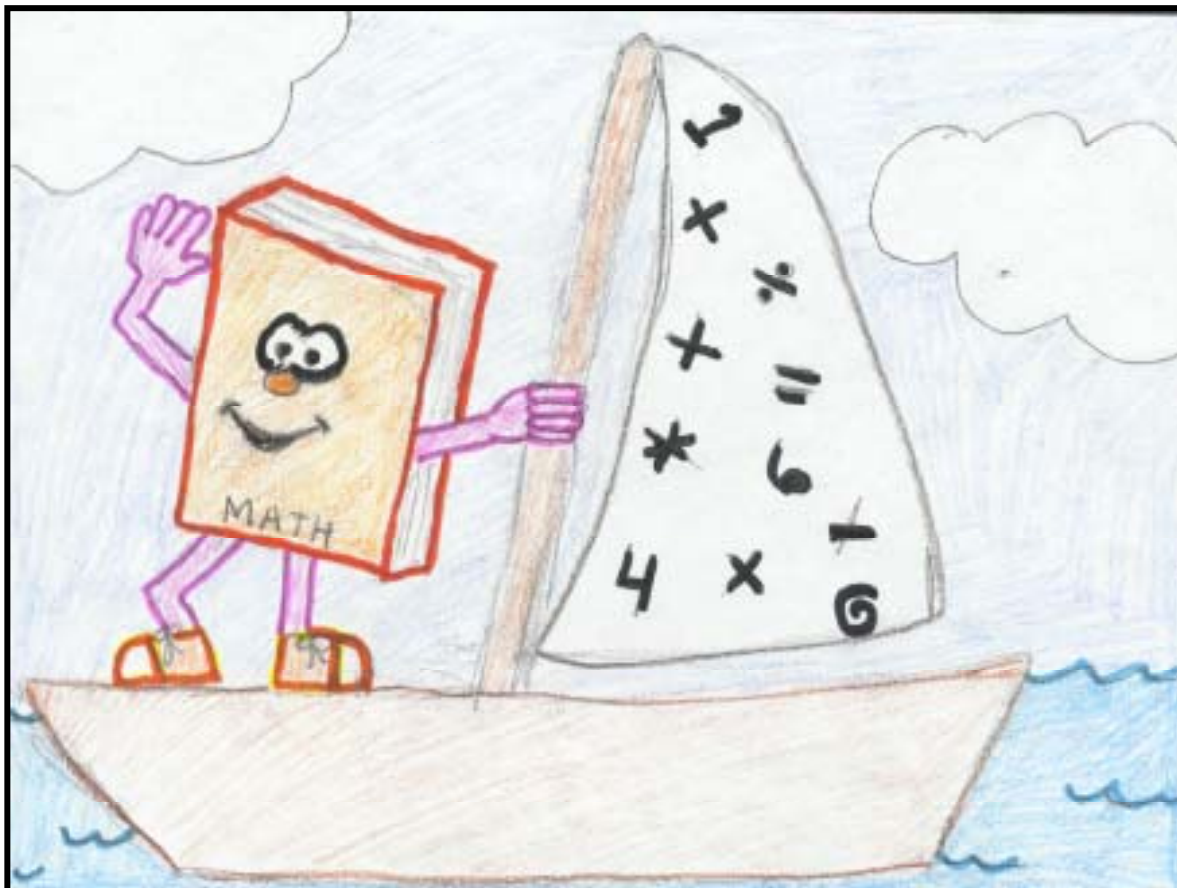


PARENT PACKET

Sail into Summer with Math!



For Students Completing Fifth Grade

This summer math booklet was developed to provide students in kindergarten through the eighth grade an opportunity to review grade level math objectives and to improve math performance.

Summer 2001

Grade 5 Mathematics Packet Answer Key

Week 1

1. The total number of rides for the club was 2,184 (56×39).
2. Check to see that the word problem can be solved by multiplying 47×78 .
3. The answers are: 504, 2835, 2025, 9720, 9660, 13143.
4. Practice multiplication facts with your child.
5. There were 2,958 (87×34) candy bars sold.
6. Jennifer would be able to go on 2,576 ($46 \times 7 \times 8$) rides during the summer.
7. Check to see that there are two multiplication problems and two division problems for each fact family.

Week 2

1. The pool is large enough, because 80×40 is 3,200 square feet, which is larger than 2,400 square feet, the minimum required for the meet.
2. The championship meet will be held at the Picnic Pool, because it has the largest area (Picnic Pool is 4,900 square feet, Sun Pool is 4,800 square feet, and Summer Pool is 4,500 square feet).
3. The club will need to purchase 400 feet of fencing ($110 + 90 + 110 + 90$).
4. The Summer Pool holds 18,000 cubic feet of water, because $90 \times 50 \times 4$ is 18,000.
5. The Sun Pool Club's kiddie pool is larger by 5 square feet (7×11 is 77 and 6×12 is 72).
6. Possible answers (many others):

km – distance to walk to school	cm – length of a pencil
m – height of person	mm – length of paper clip
mile – distance traveled on vacation	L – amount in gas tank
pint – amount in glass	quart – amount in milk container
cup – amount in recipe	gallon – amount in swimming pool
7. You would measure the length a river either in miles or kilometers. You would measure the amount of water in a river in gallons or liters (or even kiloliters or megaliters).

Week 3

1. Steve earned \$160 on the five days, so his average is \$32. At this rate, Steve would be able to buy the Playstation and games in about 2 weeks.
2. Joey's team has the better points per game average, because Jenny's team totaled 40 points, or 10 points per game, and Joey's team totaled 42 points, or 10.5 per game.
3. The average temperature for one week in July was 96° (which is the total 672 divided by 7 days).
4. Check to see if the average high and low temperatures are correct (average is found by adding up the temperatures and then dividing by the number of days).
5. The possible combinations are (18 total):

Choc			Sugar			Straw			Choc			Waffle			Straw		
Van			Van			Van			Van			Van			Van		
N	S	F	N	S	F	N	S	F	N	S	F	N	S	F	N	S	F
6. There are a total of 27 possible combinations.

Week 3 Continued

7. Thick Veg Meat
 Mush Onion GP Mush Onion GP Mush Onion GP
 PSH PSH PSH PSH PSH PSH PSH PSH PSH
 Also, check to see if the reason for the preference makes sense.
8. Check to see if the paragraph matches the method for making a tree diagram. Paragraphs should a the first sentence as a description of everything in the paragraph (topic), at least three sentences supporting the first statement, and a final sentence summarizing what was stated.

Week 4

1. You need to leave the Shady Grove station no later than 10:26 a.m. to get to Woodley Park/National Zoo by 11:00 a.m.
2. You will start back home at 3:15 p.m.
3. The tour is 3 hours and 30 minutes long. The tour bus company charged \$8.00 per hour for their tour ($\$28 \div 3.5$).
4. You will have 85 minutes to spend looking at insects.
5. The movie will end 12:55 p.m.
6. The answers are: 12 weeks 1 day (simplify 10 weeks and 15 days)
 31 weeks 3 days (simplify 28 weeks and 24 days)
7. There are 72 hours in three days and there are 14 days in 2 weeks.

Week 5

1. You will arrive in Ocean City at 2:35 p.m. The round trip will be 5 hours and 40 minutes.
2. The pictograph should show 18 driving, 25 adventure, 18 sports, and 14 battle. The scale of 2:1 means that there should be 1 picture for every two people represented, so the bars should have 9 for driving and sports, $12\frac{1}{2}$ pictures for adventure, and 7 for battle. Be sure that the graph has a title, scale indicated, key, and labeled axes.
3. There are 45 girls in the arcade if the ratio is 2 to 3 (Since the total is 75, and $75 \div 5 = 15$ (use 5 because it is $2 + 3$), then multiply the ratio by 15 to get the total of boys and girls).
4. If we convert all to eighteenths, then father eats $\frac{6}{18}$ of the pizza, mother eats $\frac{3}{18}$ of the pizza, and each sister eats $\frac{2}{18}$. This totals to $\frac{6+3+2+2}{18} = \frac{13}{18}$ of the pizza. This leaves 5 pieces of 18, or $\frac{5}{18}$, which is greater than $\frac{2}{9}$ (or $\frac{4}{18}$). There is enough pizza for you to have what you want.
5. Check that the picture has 5 right angles, 5 obtuse angles (obtuse angles are between 90 and 180 degrees), and 5 acute angles (acute angles are less than 90 degrees). Be sure that the 15 angles are labeled.
6. If there were 36 people swimming, then there were 45 people lounging on the beach (multiply by 9 to determine the answer). The total number of people on the beach is 81.
7. Dad had $\frac{1}{3}$ of the crabs, mom had $\frac{1}{4}$, you had $\frac{1}{6}$, and each sister ate $\frac{1}{8}$ of the crabs.

Week 6

1. Check to see that the list includes items that are negative (such as Death Valley, California is over 200 feet below sea level (-200), bank accounts that are overdrawn (-\$45.62), golf scores (3 below par is -3), yards lost in football (-4 yards rushing), etc.).
2. The Fibonacci sequence is additive, meaning that starting with two “seed” numbers (selected), add the first two to get the third, the second and third to get the fourth, the third and fourth to get the fifth, and so on. The classic example is 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, . . .
3. The answers are 2^7 , 5^5 , and 8^{11} . Mathematicians probably used exponents to shorten having to write long multiplication problems.
4. Check to see what terms your child has included in their mathematical vocabulary. Be sure to check for complete sentences.
5. Check to see if there are many math-related words and that your child has also recorded where the word was heard.
6. Check the letter to a future fifth-grader to see if a mathematical concept is described.

Week 7

1. You should leave no later than 11:50 a.m. to get to the game on time.
2. Check your child’s order to be sure that it is under \$20.00.
3. The t-shirt and cap together cost \$22.00, which is below your budget for souvenirs (\$25.00).
You will receive \$3.00 in change.
4. You arrived home at 7:25 p.m.

Week 8

1. Band begins at 10:03 and science ends at 1:29.
2. Reading/L.A. is the longest class, lasting 1 hour and 34 minutes. The other classes are 47 minutes long.
3. Lunch begins in the morning at 11:49 and ends in the afternoon at 12:36.
4. There is six minutes between classes.
5. According to this schedule, you spend 6 hours and 52 minutes in school each day, which is 34 hours and 20 minutes per week.
6. You should get up at 5:30 a.m. if it takes you two hours to get ready and get to school.
7. Yes, of course, your child is excited about starting middle school!