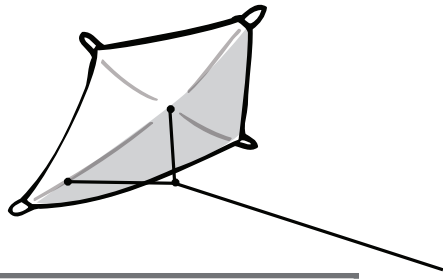
Name _____ Division with unit fractions

Date _____

# Kite Calculations



On the back of this page or another sheet of paper, solve each problem using the strategy of your choice.

Write the answer in the blank. Don't forget to label your answer.

| | | |
|---|---|---|
| **1** April wants to tie a ribbon every $\frac{1}{2}$ foot on her kite's tail. If the tail is 6 feet long, how many ribbons does she need? _____ | **2** Ty attaches $\frac{1}{4}$ of a ball of string to each kite. How many kites can he string with 4 balls of string? _____ | **3** Rosa spends 2 hours making kites. If she spends $\frac{1}{3}$ hour on each kite, how many kites does she make? _____ |
| **4** Mr. Soar has 150 yards of ribbon for kite tails. If each student gets 3 yards of ribbon for a kite tail, how many students get ribbon? _____ | **5** Michael spends $\frac{1}{4}$ hour decorating 6 kites. He spends the same amount of time on each kite. What fraction of an hour does he spend on each kite? _____ | **6** Hannah uses $\frac{1}{2}$ gallon of paint to decorate 16 kites. She uses the same amount on each kite. What fraction of a gallon of paint does she use per kite? _____ |
| **7** Mr. Wyndie divides $\frac{1}{3}$ gallon of paint evenly among 12 students. What fraction of a gallon of paint does each student receive? _____ | **8** Jawan spends $\frac{1}{12}$ hour decorating each of his kites. If he works for 2 hours, how many kites does he decorate? _____ | **9** The school's fifth graders use 20 yards of craft paper for their kites. If each student uses $\frac{1}{2}$ yard of paper, how many fifth graders are there? _____ |
| **10** Three students equally share a piece of string that is $\frac{1}{12}$ of a mile long. What fraction of a mile of string does each student receive? _____ | **11** Kate's Kite Shop is open for 8 hours on Saturday. She sells one kite every $\frac{1}{5}$ hour. How many kites does she sell on Saturday? _____ | **12** Kate spends $\frac{1}{5}$ hour unpacking each box of kites. If she works for 3 hours, how many boxes does she unpack? _____ |

Solve each equation. Write each quotient in simplest form.

**13** $16 \div \frac{1}{3}$

**14** $\frac{1}{7} \div 6$

**15** $12 \div \frac{1}{8}$

**Bonus:** If you were to divide 12 by $\frac{1}{2}$, $\frac{1}{3}$, and $\frac{1}{4}$, which divisor do you predict will result in the largest quotient? Explain your reasoning. Then check your prediction by solving all three problems.

# “Kite Calculations”
# Answer Key

1. 12 ribbons
2. 16 kites
3. 6 kites
4. 50 students
5. 1/24 of an hour
6. 1/32 of a gallon
7. 1/36 of a gallon
8. 24 kites
9. 40 fifth graders
10. 1/36 of a mile of string
11. 40 kites
12. 15 boxes
13. 48
14. 1/42
15. 96

Bonus: ¼; explanations will vary.

12 ÷ ½ = 24
12 ÷ ⅓ = 36
12 ÷ ¼ = 48