

# MasterMath

## Perfect Practice Worksheet

Name \_\_\_\_\_

Date \_\_\_\_\_

### Estimating with Fractions

*If your answer is close to these answers, you are correct!*

1. Round these fractions up to the nearest Compatible Number

3/5	3/4
4/5	1
2/3	3/4

8/9	1
1/6	1/4
5/8	3/4

6/7	1
1/8	1/4
18/19	1

2. Estimate the product or quotient: *It's helpful to round one up, the other down.*

	rounded	estimate
$1/8 \times 4/5$	$1/4 \times 3/4$	$3/16$
$6/7 \times 2/3$	$1 \times 2/3$	$2/3$
$5/8 \times 1/2$	$1/2 \times 1/2$	$1/4$
$8/9 \div 7/8$	$1 \div 3/4$	$4/3$ or $1 \frac{1}{3}$
$6/7 \div 2$	$1 \div 2$	$1/2$
$4 \div 7/8$	$4 \div 1$	$4$
$1/8 \times 4/7$	$1/4 \div 1/2$	$1/2$

	rounded	estimate
$1 \frac{1}{5} \times 6 \frac{7}{8}$	$1 \times 7$	$7$
$16 \frac{1}{5} \times 2 \frac{1}{3}$	$16 \times 2$	$32$
$1/4 \times 2/3$	$1/4 \times 1/2$	$1/8$
$2 \frac{3}{4} \div 3 \frac{1}{2}$	$2 \frac{3}{4} \div 3$	$11/12$
$18 \frac{1}{5} \div 2 \frac{5}{6}$	$18 \div 3$	$6$
$24 \frac{1}{2} \div \frac{1}{2}$	$24 \div 1$	$24$
$3 \frac{1}{5} \times 4 \frac{2}{3}$	$3 \times 5$	$15$

Use compatible numbers to estimate the answer

3.  $4/7 \times 1/6$   4.  $120 \div 2\%$

5.  $2/3 + 5 \frac{1}{2}$   6.  $8 \frac{1}{2} - 2 \frac{1}{2}$

7.  $\div$   $15 \frac{1}{2} - 2 \frac{2}{3}$   8.  $1/5 + 1/2$

9. You shoot 406 free throws, and you make  $1/4$  of them. Estimate how many free throws you make.

rounded	estimation
$1/4 \times 400$	100

10. Your recipe for cookies calls for  $1 \frac{3}{4}$  cups of flour per 25 cookies. You have 8 cups of flour. Estimate how many cookies you can make.

rounded	estimation
2 cups for 25 cookies	100

11. In Problem 10. above, you rounded the  $1 \frac{3}{4}$  either up or down. Why would it be a mistake to round it the other way?

If you rounded down, you'd overestimate, and not have enough flour.  
If you round up, you'll have a little flour left over.

12. A gallon of paint covers 400 square feet. The 4 walls you want to paint are each 9' x 20'. How many gallons of paint will you need?

$9' \times 20' \approx 10' \times 20' = 200$  sq ft. 4 walls x 200 sq ft = 800 sq ft. You will have a little paint left over, since you overestimated.