

MULTIPLY FRACTIONS BY WHOLE NUMBERS



3 MINI-LESSONS

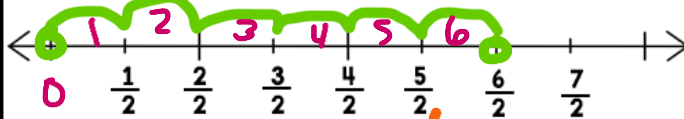
Multiply Fractions by Whole Numbers

With Pictures:

$$\frac{2}{5} \times 3 = \text{3 pentagons each with 2/5 shaded} = \frac{6}{5} = 1\frac{1}{5}$$

$$\frac{4}{10} \times 6 = \text{6 circles each with 4/10 shaded} = \frac{24}{10} = 2\frac{4}{10} = 2\frac{2}{5}$$

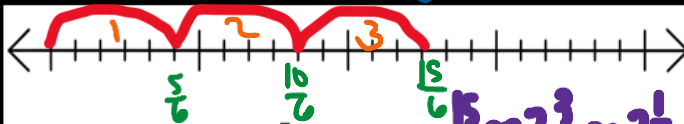
With a Number Line:



$$\frac{1}{2} \times 6 = 3$$



$$\frac{2}{8} \times 7 = 1\frac{3}{4}$$



$$\frac{5}{6} \times 3 = 2\frac{1}{2}$$

Multiply Fractions by Whole Numbers

1. Turn the whole number into an improper fraction.
2. Write the problem again with the fractions lined up.
3. Multiply the numerators together.
4. Multiply the denominators together.
5. Reduce the fraction and change to a mixed number if necessary.

$$\frac{3}{4} \times 3 =$$

$$\frac{3}{4} \times \frac{3}{1} = \frac{9}{4} = 2\frac{1}{4}$$

$$\frac{4}{5} \times 8 =$$

$$\frac{4}{5} \times \frac{8}{1} = \frac{32}{5} = 6\frac{2}{5}$$

$$\frac{1}{2} \times 6 =$$

$$\frac{1}{2} \times \frac{6}{1} = \frac{6}{2} = 3$$

$$\frac{7}{8} \times 7 =$$

$$\frac{7}{8} \times \frac{7}{1} = \frac{49}{8} = 6\frac{1}{8}$$

$$\frac{3}{10} \times 5 =$$

$$\frac{3}{10} \times \frac{5}{1} = \frac{15}{10} = 1\frac{1}{2}$$

$$\frac{1}{6} \times 9 =$$

$$\frac{1}{6} \times \frac{9}{1} = \frac{9}{6} = 1\frac{1}{2}$$

$$\frac{2}{3} \times 4 =$$

$$\frac{2}{3} \times \frac{4}{1} = \frac{8}{3} = 2\frac{2}{3}$$

$$\frac{1}{5}$$

$$\frac{1}{10}$$

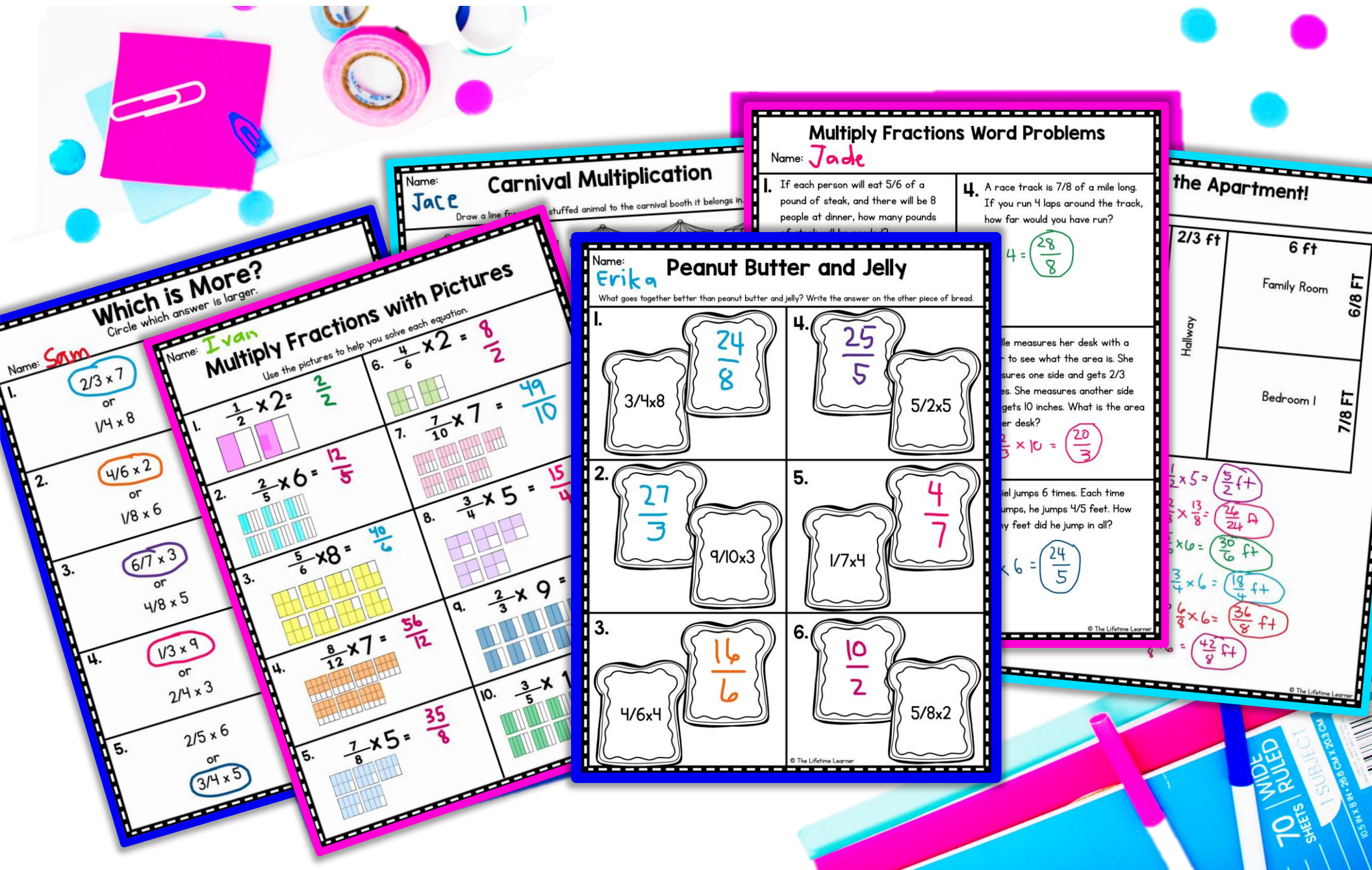
$$\frac{1}{12}$$

$$\frac{1}{12}$$

$$\frac{1}{8}$$

$$\frac{1}{4}$$

20 WORKSHEETS



Which is More?

Circle which answer is larger.

Name: **Sam**

- $\frac{2}{3} \times 7$ or $\frac{1}{4} \times 8$
- $\frac{4}{6} \times 2$ or $\frac{1}{8} \times 6$
- $\frac{6}{7} \times 3$ or $\frac{4}{8} \times 5$
- $\frac{1}{3} \times 9$ or $\frac{2}{4} \times 3$
- $\frac{2}{5} \times 6$ or $\frac{3}{4} \times 5$

Multiply Fractions with Pictures

Use the pictures to help you solve each equation.

Name: **Ivan**

- $\frac{1}{2} \times 2 = \frac{2}{2}$
- $\frac{2}{5} \times 6 = \frac{12}{5}$
- $\frac{5}{6} \times 8 = \frac{40}{6}$
- $\frac{8}{12} \times 7 = \frac{56}{12}$
- $\frac{7}{8} \times 5 = \frac{35}{8}$

Carnival Multiplication

Name: **Jace**

Draw a line from the stuffed animal to the carnival booth it belongs in.

Peanut Butter and Jelly

Name: **Erika**

What goes together better than peanut butter and jelly? Write the answer on the other piece of bread.

- $\frac{3}{4} \times 8$ $\frac{24}{8}$
- $\frac{27}{3}$ $\frac{9}{10} \times 3$
- $\frac{4}{6} \times 4$ $\frac{16}{6}$
- $\frac{25}{5}$ $\frac{5}{2} \times 5$
- $\frac{27}{3}$ $\frac{4}{7}$
- $\frac{10}{2}$ $\frac{5}{8} \times 2$

Multiply Fractions Word Problems

Name: **Jade**

- If each person will eat $\frac{5}{6}$ of a pound of steak, and there will be 8 people at dinner, how many pounds of steak will be needed?
- A race track is $\frac{7}{8}$ of a mile long. If you run 4 laps around the track, how far would you have run?

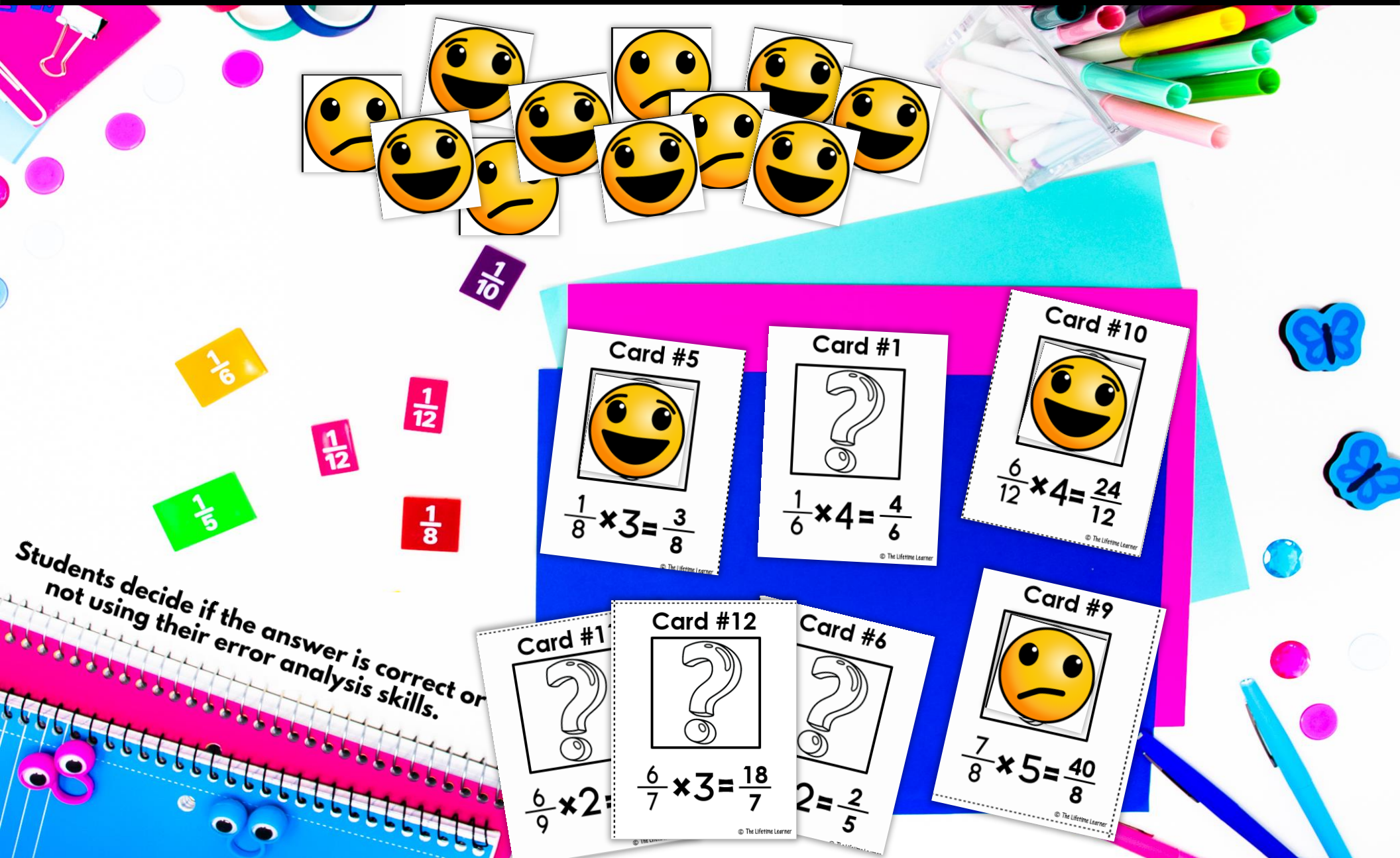
$$4 = \frac{28}{8}$$

the Apartment!

$\frac{2}{3}$ ft	6 ft	$\frac{6}{8}$ FT
Hallway	Family Room	$\frac{7}{8}$ FT
	Bedroom I	

$$\begin{aligned} \frac{1}{2} \times 5 &= \frac{5}{2} \text{ ft} \\ \frac{2}{3} \times \frac{13}{8} &= \frac{26}{24} \text{ ft} \\ \frac{5}{6} \times 6 &= \frac{30}{6} \text{ ft} \\ \frac{3}{4} \times 6 &= \frac{18}{4} \text{ ft} \\ \frac{6}{8} \times 6 &= \frac{36}{8} \text{ ft} \\ 8 \times 6 &= \frac{48}{8} \text{ ft} \end{aligned}$$

MATH SORT



$\frac{1}{10}$

$\frac{1}{6}$

$\frac{1}{12}$

$\frac{1}{12}$

$\frac{1}{8}$

$\frac{1}{5}$

Card #5


$$\frac{1}{8} \times 3 = \frac{3}{8}$$

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Card #1


$$\frac{1}{6} \times 4 = \frac{4}{6}$$

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Card #10


$$\frac{6}{12} \times 4 = \frac{24}{12}$$

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Card #1


$$\frac{6}{9} \times 2 =$$

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Card #12


$$\frac{6}{7} \times 3 = \frac{18}{7}$$

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Card #6


$$2 = \frac{2}{5}$$

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Card #9


$$\frac{7}{8} \times 5 = \frac{40}{8}$$

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Students decide if the answer is correct or not using their error analysis skills.

ERROR ANALYSIS

2 versions:
-answers not reduced
-answers reduced

**CORRECT
ANSWERS**

**INCORRECT
ANSWERS**

Multiplying Fractions
by Whole Numbers


$$4 \times \frac{1}{2} = 2$$

Task Card #1 © The Lifetime Learner

Multiplying Fractions
by Whole Numbers


$$6 \times \frac{3}{4} = 4 \frac{1}{2}$$

Task Card #2 © The Lifetime Learner

Multiplying Fractions
by Whole Numbers


$$9 \times \frac{9}{10} = 8 \frac{1}{10}$$

Task Card #3 © The Lifetime Learner

**Students sort the cards into the two
categories using their error analysis skills.**

GAME #1



LINE THEM UP!	START!	1
LINE THEM UP!	$2/3 \times 8$	1
LINE THEM UP!	$5 \frac{1}{3}$ $1/4 \times 9$	1
LINE THEM UP!	$2 \frac{1}{4}$ $7/12 \times 2$	1
LINE THEM UP!	$1 \frac{2}{12}$ $5/8 \times 6$	1
LINE THEM UP!	$3 \frac{6}{8}$ $1/10 \times 7$	1



LINE THEM UP!	START!	2
LINE THEM UP!	$2/4 \times 9$	2
LINE THEM UP!	$4 \frac{2}{4}$ $3/12 \times 5$	2
LINE THEM UP!	$1 \frac{3}{12}$ $6/10 \times 7$	2
LINE THEM UP!	$4 \frac{2}{10}$ $5/10 \times 6$	2
LINE THEM UP!	3 $4/10 \times 4$	2



HOW TO PLAY:

- Students pair up in teams.
 - Students race to line up their cards in order before the other team.
- 

GAME #2

the perfect game to play with the whole class

You have 3 sacks of flour.
Each one weighs $\frac{2}{6}$ of a
pound. How many pounds
do they weigh altogether?

$$3 \times \frac{2}{6} = 1$$

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#5

You have 8 sacks of flour.
Each one weighs $\frac{1}{2}$ of a
pound. How many pounds
do they weigh altogether?

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#4

You have 7 sacks of flour.
Each one weighs $\frac{1}{8}$ of a
pound. How many pounds
do they weigh altogether?

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#2

Click the bucket to see
this game in action.

HOW TO PLAY:

1. Students answer task cards.
2. If they get it right, they drop it in the bucket.
3. Students play for a set amount of time.
4. At the end of gameplay, the teacher draws task cards out of the bucket.
5. Any student whose task card gets pulled out gets a small prize.

You have 6 sacks of flour.
Each one weighs $\frac{3}{4}$ of a
pound. How many pounds
do they weigh altogether?

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#1



GAME #3

FOR 2-4 PLAYERS



HOW TO PLAY:

1. All players receive a game mat.
2. Students answer a question card.
3. If they are correct, they earn an item.
4. The first person to earn 10 items wins.
5. Chance cards included to spice up gameplay.



Multiply to find the answer.

$$9 \times \frac{2}{7}$$

18
7

#11

Multiply to find the answer.

$$7 \times \frac{2}{5}$$

Multiply to find the answer.

$$10 \times \frac{3}{12}$$

#12

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Multiply to find the answer.

$$\frac{4}{7} \times 6$$

#10



GAME #4

Students solve a task card and earn points in this fun bug-themed game.



BUY THE BUNDLE AND SAVE BIG!

4TH GRADE MATH BUNDLE

Partial Products
Name: *ericka*
Use your knowledge of partial products to solve each equation.

1. Equations: $2 \times 5,096$
 $5000 \times 2 = 10000$
 $0 \times 2 = 0$
 $90 \times 2 = 180$
 $6 \times 2 = 12$

2. Equations: $4 \times 8,923$
 $8000 \times 4 = 32000$
 $900 \times 4 = 3600$
 $20 \times 4 = 80$
 $3 \times 4 = 12$

3. Equations: $8 \times 5,624$
 $5000 \times 8 = 40000$
 $600 \times 8 = 4800$
 $20 \times 8 = 160$
 $4 \times 8 = 32$

4. Equations: $5 \times 2,089$
 $2000 \times 5 = 10000$
 $0 \times 5 = 0$
 $80 \times 5 = 400$
 $9 \times 5 = 45$

My Space Scene
To win, you must have 10 items in your space scene.
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6000+ PAGES

GAMES **ACTIVITIES** **WORKSHEETS**

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FARMER day multiply fractions by whole numbers 4.NF.4



4th GRADE EDITABLE ROOM TRANSFORMATION By: The Lifetime Learner

SURGERY day fractions as decimals 4.NF.6



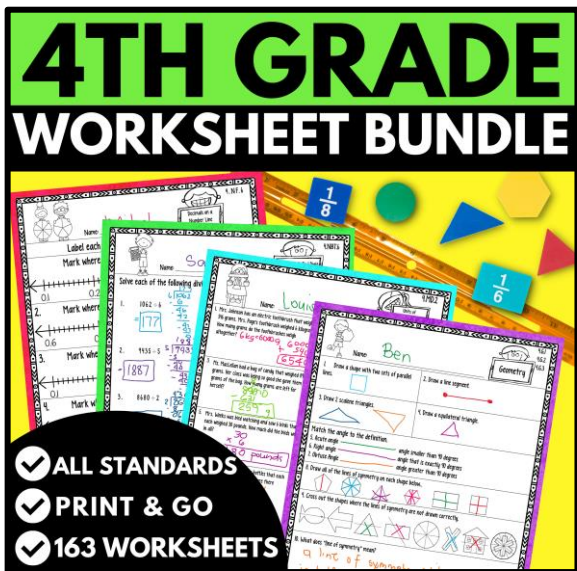
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4TH GRADE WORKSHEET BUNDLE



✓ ALL STANDARDS
✓ PRINT & GO
✓ 163 WORKSHEETS

GRAB IT! 35 MATH GAMES

4TH GRADE



GRAB IT! $1\frac{4}{8} \div 2\frac{1}{6} =$

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4TH GRADE BUNDLE TASK CARDS



✓ DIGITAL
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