

Master 8.17**Additional Activity 1:
Great Fractions**

Work with a partner.

You will need a deck of cards with 10s and face cards removed. An ace equals 1.

- One player shuffles and deals the all the cards face down.
Players put their cards in a pile.
- Each player takes 3 cards from the top of her or his pile.
Using 2 of the 3 cards, make a fraction whose numerator is less than or equal to its denominator.
Return the unused card to the bottom of the pile.
- Compare fractions.
The player with the greater fraction scores 1 point.
If the fractions are equivalent, each player scores 1 point.
- Continue playing until all the cards have been used.
The player with more points wins.

Take it Further:

Play the game again.

This time players must also name an equivalent fraction for each fraction they make.

Master 8.18a

**Additional Activity 2:
Box It In**

Work on your own.

You will need a copy of *Box It In Game Boards* (Master 8.18b).

- Look at the fractions below the first strip.
The letters below each strip belong to the strip above them.
- Use the benchmarks on each fraction strip.
Write the letter for each fraction or mixed number in the box between the two benchmarks that it is closest to. You may want to write the improper fractions as mixed numbers to help you place the letters.
- The completed strip will spell out a message.
- Repeat with the second strip. You may want to write the improper fraction as a mixed number to help you place the letter.
- Repeat with the third strip. You may want to write all the fractions as decimals to help you place the letters.

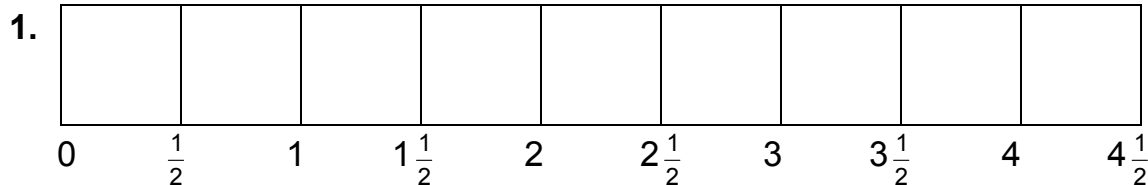
Take it Further:

Create your own “Box It In” challenge for other students to solve.

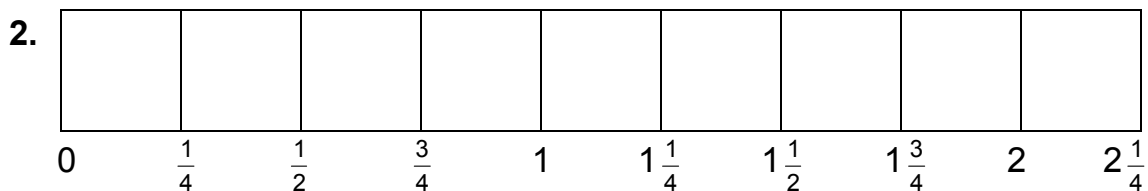
Master 8.18b

Additional Activity 2: Box It In Game Boards

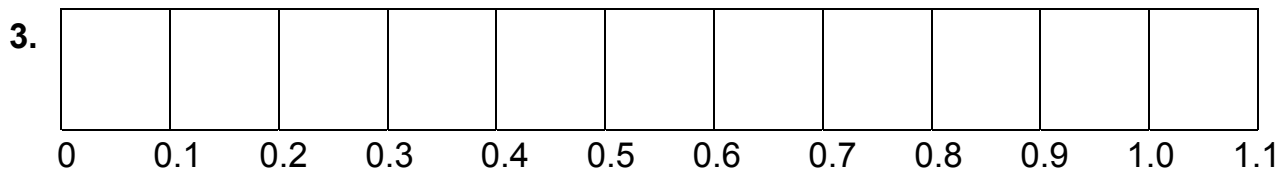
Put the letters in the correct box.



L $\frac{5}{8}$	G $\frac{10}{3}$	I $2\frac{2}{3}$	A $\frac{3}{7}$
L $\frac{10}{7}$	T $4\frac{9}{20}$	H $3\frac{2}{3}$	R $\frac{9}{4}$



D $2\frac{1}{8}$	Y $\frac{7}{8}$	O $1\frac{2}{3}$	O $\frac{15}{8}$
E $\frac{3}{8}$	V $\frac{1}{5}$	R $\frac{7}{10}$	G $1\frac{3}{8}$



R $\frac{3}{4}$	T $\frac{21}{20}$	O $\frac{53}{100}$	A $\frac{7}{100}$
L $\frac{1}{4}$	R $\frac{31}{50}$	E $\frac{17}{20}$	C $\frac{19}{20}$
C $\frac{11}{25}$	L $\frac{7}{50}$		

Master 8.19**Additional Activity 3:
Target 100**

Work with a partner.

You will need a number cube and calculators.

- Each player rolls the number cube 3 times to make a decimal.
The first number rolled is the ones digit, the second number is the tenths digit, and the third number is the hundredths digit.
- Enter the decimal in your calculator.
Estimate what number to multiply the decimal by to get a product as close to 100 as possible.
Calculate the product.
- The player with the product closer to 100 scores 1 point.
- Continue to play. The first player to score 10 points wins.

Take it Further:

Play the game again, with a target number of 200 or 500.

Master 8.20a

Additional Activity 4: Estimating Decimal Products

Take turns:

- Choose one whole number and one decimal from the chart.
Cross off the numbers.
- Estimate the product.
- Have your partner use a calculator to find the actual product.
Find the difference between the actual product and the estimate.
- Use the scoring chart.
Find the range that contains this difference.
Score the number of points indicated.
Record your score.
- Continue to play until all numbers have been used.
- Total your scores. The player with the greater score wins.

Take it Further:

Play the game again. This time, players cannot use calculators to find the products.

Name _____ Date _____

Master 8.20b

Additional Activity 4: Estimating Decimal Products Charts

3.9	2.6	21.8
2	5	8
32.4	15.7	3
48.6	6	4.3
4	10	1.4
19.2	7	9

Scoring Chart

Range	Points
0–4.9	3
5–9.9	2
10–15.9	1
16 and over	0