

**POP-IN MATH  
NIGHT**



**4TH GRADE  
AT-HOME GAMES**





## Work Place Instructions 4B Add, Round & Compare

### Each pair of players needs:

- a 4B Add, Round & Compare Record Sheet to share
- a deck of Number Cards

- 1 Players work together to remove the wild cards and the 10s from the deck of cards, shuffle them thoroughly, and place the deck face-down between them. Each player draws a card from the stack; the player with the greater number goes first.
- 2 Player 1 draws 3 cards from the deck, places them in any order he chooses to form a 3-digit number, and then writes that number on the record sheet. Then he rearranges the same 3 cards to form a different 3-digit number, and writes that on the sheet as well.
- 3 Player 1 rounds each number to the nearest hundred and writes the rounded numbers in the first row of the Rounded Numbers column of the record sheet.
- 4 Player 1 adds the actual numbers and the rounded numbers and records each sum on the record sheet. Player 2 checks Player 1's addition.
- 5 Player 1 finds the difference between the rounded numbers and the actual numbers and records it in the last column on the record sheet.

Sometimes the actual number will be larger, and sometimes the rounded number will be larger. Players write the larger number in the first line of the equation.

Actual Numbers	Rounded Numbers	Difference Between Actual Sum and Rounded Sum
5 4 2	5 0 0	8 0 0
+ 2 5 4	+ 3 0 0	- 7 9 6
7 9 6	8 0 0	4

*Riley* I got a 5, a 2, and a 4. I decided to use those numbers to make 542 for the first number and 254 for the second number. I didn't know it would turn out so well, but maybe it's good if you make one number that rounds down and one that rounds up. So my rounded numbers were 500 and 300, which is 800, and the difference between my actual total and the rounded total was only 4!

- 6 Now it is Player 2's turn. Player 2 repeats steps 2–5.
- 7 After three rounds of the game, players add their scores from all three rounds. The player with the lower score wins the game.

### Game Variations

- A Players can play Add, Round & Compare with 2-digit numbers by drawing only 2 cards instead of 3 on each turn, and rounding to the nearest 10 instead of the nearest 100.
- B Players can roll a more/less die before they start to play or at the very end of the game. If the die says *more*, the player with the higher score wins. If the die says *less*, the player with the lower score wins.
- C Players can play the game with 4-digit numbers by drawing 4 cards instead of 3 on each turn, and rounding to the nearest 1,000 instead of the nearest 100.



0

Number Card

QCM6001

1

Number Card

QCM6001

2

Number Card

QCM6001

3

Number Card

QCM6001

4

Number Card

QCM6001

5

Number Card

QCM6001

6

Number Card

QCM6001

7

Number Card

QCM6001

8

Number Card

QCM6001

9

Number Card

QCM6001

10

Number Card

QCM6001

WILD  
CARD

Number Card

QCM6001

0

Number Card

QCM6001

1

Number Card

QCM6001

2

Number Card

QCM6001

3

Number Card

QCM6001

4

Number Card

QCM6001

5

Number Card

QCM6001

6

Number Card

QCM6001

7

Number Card

QCM6001

8

Number Card

QCM6001

9

Number Card

QCM6001

10

Number Card

QCM6001

WILD  
CARD

Number Card

QCM6001

0

Number Card

QCM6001

1

Number Card

QCM6001

2

Number Card

QCM6001

3

Number Card

QCM6001

4

Number Card

QCM6001

5

Number Card

QCM6001

6

Number Card

QCM6001

7

Number Card

QCM6001

8

Number Card

QCM6001

9

Number Card

QCM6001

10

Number Card

QCM6001

WILD  
CARD

Number Card

QCM6001

0

Number Card

QCM6001

1

Number Card

QCM6001

2

Number Card

QCM6001

3

Number Card

QCM6001

4

Number Card

QCM6001

5

Number Card

QCM6001

6

Number Card

QCM6001

7

Number Card

QCM6001

8

Number Card

QCM6001



**9**

Number Card

QCM6001

**10**

Number Card

QCM6001

**WILD  
CARD**

Number Card

QCM6001



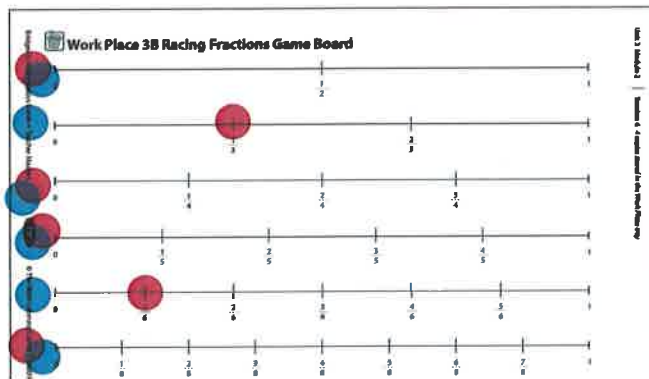
## Work Place Instructions 3B Racing Fractions

### Each pair of players needs:

- 1 Racing Fractions Record Sheet to share
- 1 Racing Fractions Game Board
- 7 red game markers
- 7 blue game markers
- 1 deck of Racing Fraction Cards

- 1 Players decide who will play with the red game markers, and who will play with the blue markers. Then both players place one of their game markers at the beginning of each number line on the game board.
- 2 Players shuffle the fraction cards and lay them face-down in a stack. Each player draws one card. The player with the larger fraction goes first. Players put the cards just drawn at the bottom of the stack.
- 3 Player 1 draws a new card and moves one or more game markers the distance shown on the card.

*Player 1* I got  $\frac{3}{6}$ . That's the same as  $\frac{1}{2}$ , so I could go  $\frac{1}{2}$ ,  $\frac{2}{4}$ ,  $\frac{3}{6}$ ,  $\frac{4}{8}$ , or  $\frac{5}{10}$ . Hmm...or I could do  $\frac{1}{3}$  and  $\frac{1}{6}$ . I remember those make  $\frac{1}{2}$  from when we looked at egg carton fractions. I think I'll do that.



- 4 Player 1 records the fraction in his Fraction column on the record sheet and writes the fraction or equation that describes how the game markers were moved in his Equation column.  
(If the player selected  $\frac{1}{2}$  and moved  $\frac{1}{2}$ , he would write  $\frac{1}{2}$ . If the player selected  $\frac{1}{2}$  and moved one marker to  $\frac{1}{3}$  and another marker to  $\frac{1}{6}$ , he would write  $\frac{1}{3} + \frac{1}{6} = \frac{1}{2}$ .)
- 5 Player 2 checks first player's work on the record sheet. Player 1 tries again if an error was made.
- 6 Then Player 2 draws a fractions card and takes a turn. Player 1 checks the second player's work.
- 7 Players continue to take turns, record moves, and check each other's work until one player's game markers are all on 1. If Player 1 is the first to land on 1, Player 2 may take one last turn.  
If a player cannot find a possible move for a card he has drawn, the player loses the turn.  
Players may also move game markers backward. For example, if a player selects  $\frac{1}{3}$ , she can move one marker up  $\frac{1}{3}$  and another back  $\frac{1}{6}$ . The sum or the difference of the moves still needs to equal the value on the fraction card.

### Game Variations

- A Play cooperatively. Players can work together and help each other finish the track in a certain time period.
- B Double the length of each track by taping 2 copies of the Racing Fractions Game Board Teacher Master together, writing a 1 in front of every fraction on the second sheet, and changing the 1 at the end of each track on the second sheet to a 2.

NAME \_\_\_\_\_

DATE \_\_\_\_\_



## 3B Racing Fractions Record Sheet

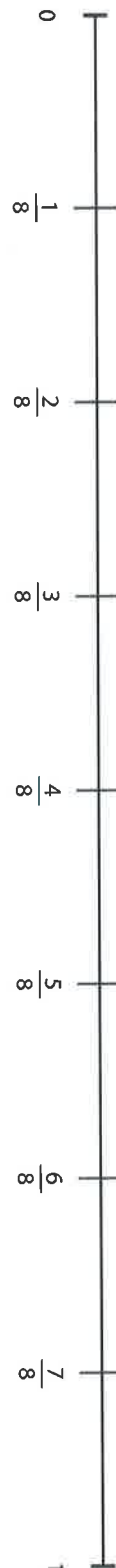
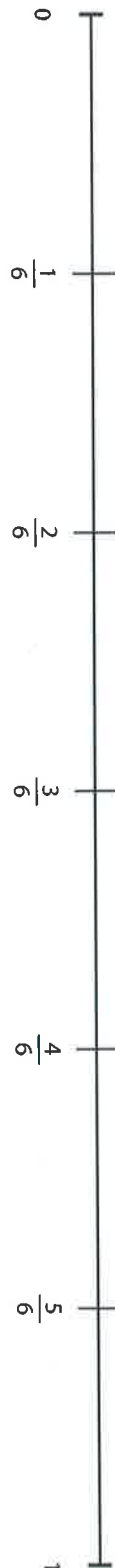
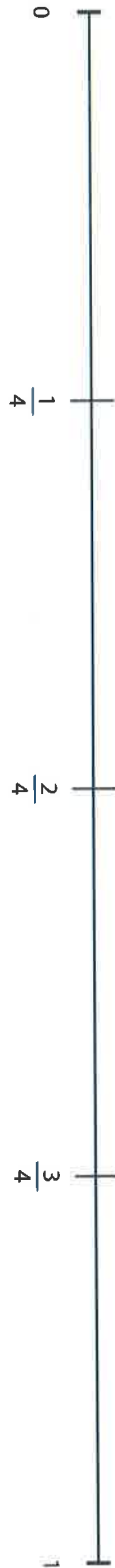
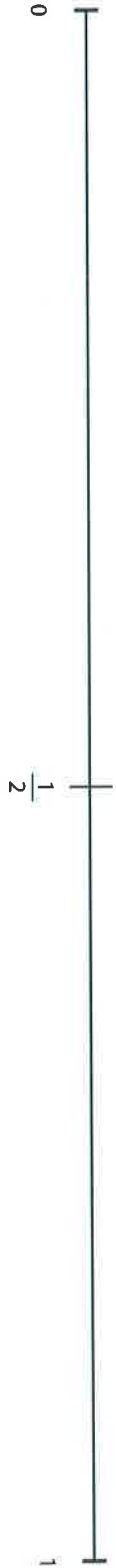
Player 1 \_\_\_\_\_ Player 2 \_\_\_\_\_

Use the chart below to record your work with Racing Fractions. Write the fraction on the fraction card in the first column. Write an equation that represents your moves in the second column. The first one has been filled in for you as an example.

Player 1		Player 2	
Fraction	Equation	Fraction	Equation
$\frac{3}{4}$	$\frac{1}{2} + \frac{1}{4} = \frac{3}{4}$	$\frac{4}{5}$	$\frac{1}{2} + \frac{1}{5} + \frac{1}{10} = \frac{4}{5}$



### 3B Racing Fractions Game Board



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

Racing Fractions Card

QCB4002

$$\frac{2}{10}$$

Racing Fractions Card

QCB4002

$$\frac{3}{10}$$

Racing Fractions Card

QCB4002

$$\frac{4}{10}$$

Racing Fractions Card

QCB4002

$$\frac{5}{10}$$

Racing Fractions Card

QCB4002

$$\frac{6}{10}$$

Racing Fractions Card

QCB4002

$$\frac{7}{10}$$

Racing Fractions Card

QCB4002

$$\frac{8}{10}$$

Racing Fractions Card

QCB4002

$$\frac{9}{10}$$

Racing Fractions Card

QCB4002

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

**Racing Fractions Card**

QCB4002

$$\frac{2}{8}$$

**Racing Fractions Card**

QCB4002

$$\frac{3}{8}$$

**Racing Fractions Card**

QCB4002

$$\frac{4}{8}$$

**Racing Fractions Card**

QCB4002

$$\frac{5}{8}$$

**Racing Fractions Card**

QCB4002

$$\frac{6}{8}$$

**Racing Fractions Card**

QCB4002

$$\frac{7}{8}$$

**Racing Fractions Card**

QCB4002

$$\frac{1}{6}$$

**Racing Fractions Card**

QCB4002

$$\frac{2}{6}$$

**Racing Fractions Card**

QCB4002

$$\frac{3}{6}$$

Racing Fractions Card

QCB4002

$$\frac{4}{6}$$

Racing Fractions Card

QCB4002

$$\frac{5}{6}$$

Racing Fractions Card

QCB4002

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

Racing Fractions Card

QCB4002

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

Racing Fractions Card

QCB4002

$$\frac{3}{5}$$

Racing Fractions Card

QCB4002

$$\frac{4}{5}$$

Racing Fractions Card

QCB4002

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

Racing Fractions Card

QCB4002

$$\frac{2}{4}$$

Racing Fractions Card

QCB4002

$$\frac{3}{4}$$

**Racing Fractions Card**

QCB4002

$$\frac{1}{3}$$

**Racing Fractions Card**

QCB4002

$$\frac{2}{3}$$

**Racing Fractions Card**

QCB4002

$$\frac{1}{2}$$

**Racing Fractions Card**

QCB4002