



# Helping With Math

## Comparing Like Fractions

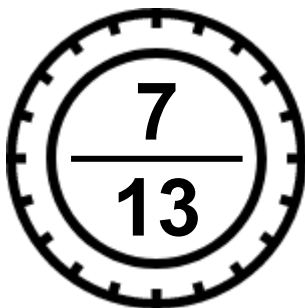


GRADE 3

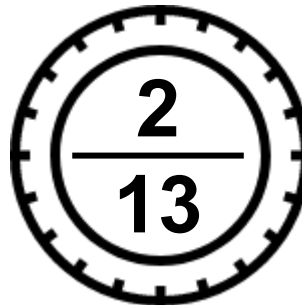


In comparing like fractions, it is always easy to compare two or more fractions if their denominators are of the same number.

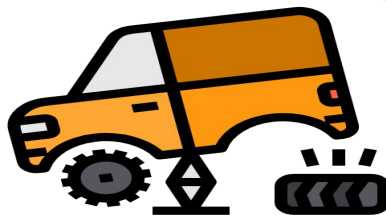
Any two like fractions can be compared by comparing their numerators. The fraction with larger numerator is greater than the fraction with smaller numerator.



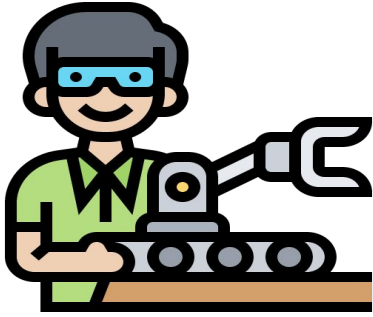
>  
greater than



Because 7 is greater than 2.



## Mathematical Symbols



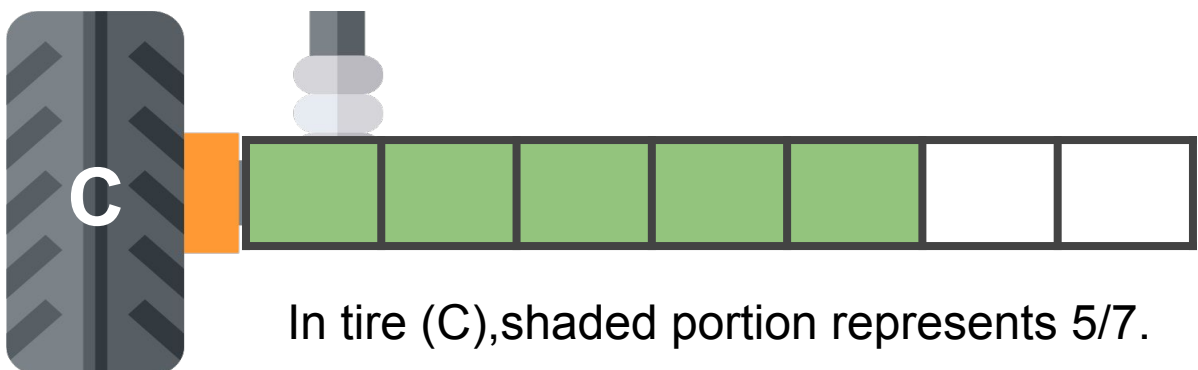
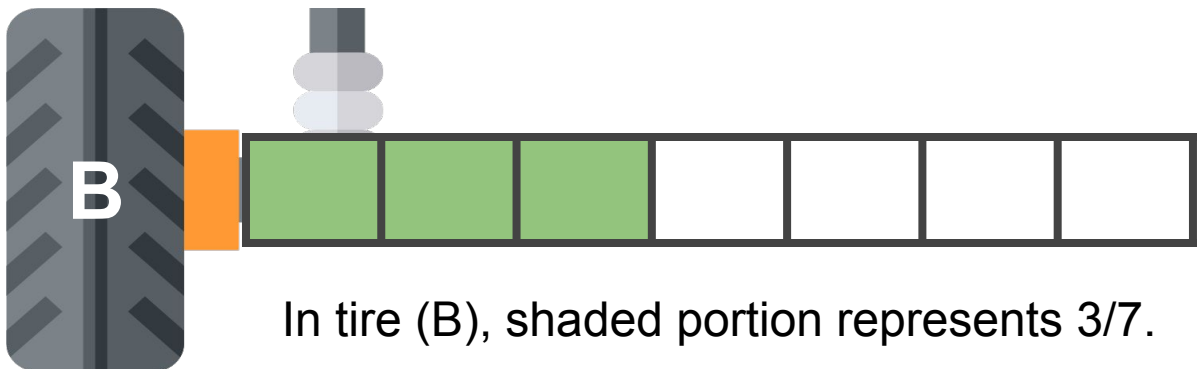
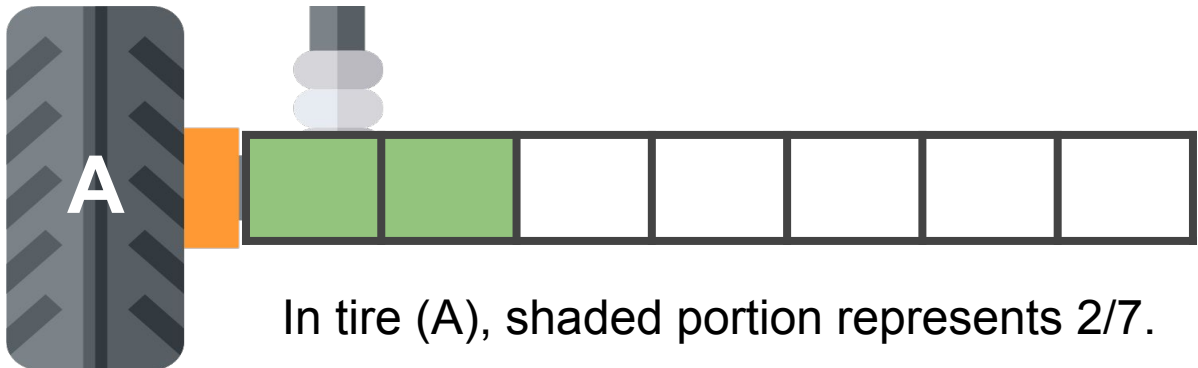
Below are the symbols used in comparing like fractions.

SYMBOL	MEANING	EXAMPLE
=	Equal sign is used to show that the two fractions are equal in value.	$\frac{1}{2} = \frac{1}{2}$
<	Less than sign is used to show that one fraction has smaller value than the other number.	$\frac{3}{8} < \frac{5}{8}$
>	Greater than sign is used to show that one fraction has larger value than the other number.	$\frac{5}{8} > \frac{3}{8}$



## Comparison of like fraction

In comparing like fractions, let us use the rectangular figures below.



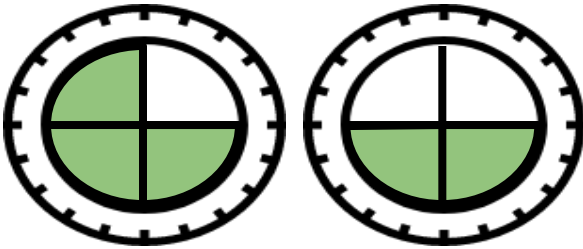
It is clear that  $2/7 < 3/7 < 5/7$  or  $5/7 > 3/7 > 2/7$



Compare the fractions by writing a  $<$ ,  $>$  or  $=$  sign.

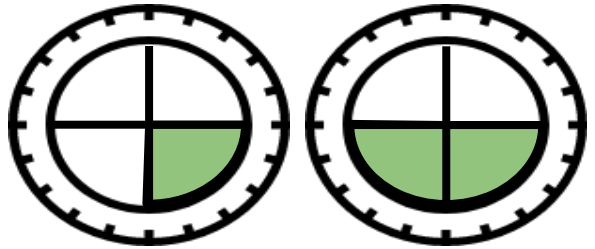
1

$$\frac{3}{4} > \frac{2}{4}$$



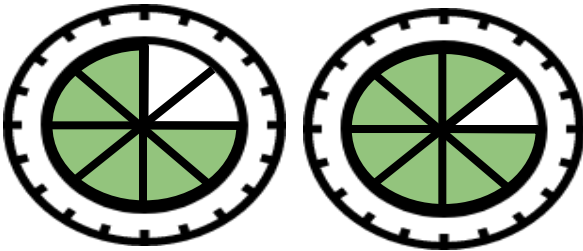
2

$$\frac{1}{4} < \frac{2}{4}$$



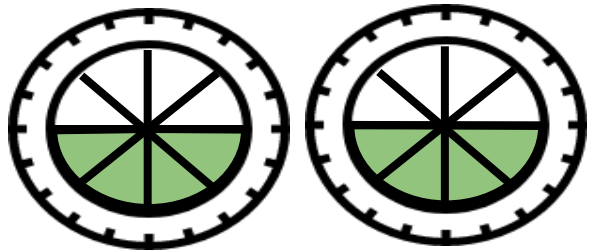
3

$$\frac{6}{8} \square \frac{7}{8}$$



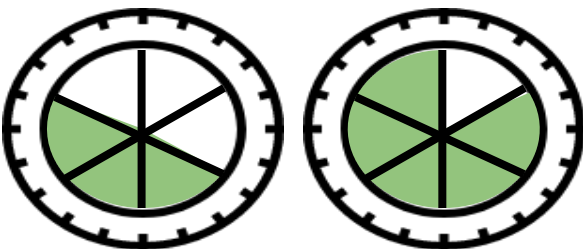
4

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



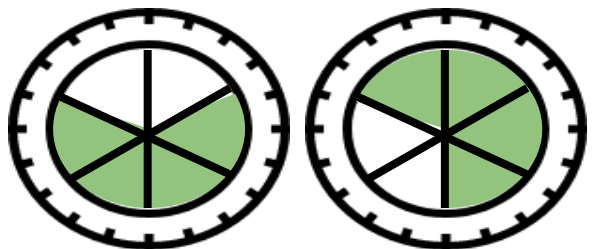
5

$$\frac{3}{6} \square \frac{5}{6}$$



6

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



# TABLE OF ACTIVITIES

1. Repair' Compare
2. Wheel of Fractions
3. Fractool
4. Fix Less
5. Which Tool?
6. Screw Lock
7. Cars and Parts
8. Car Service
9. Flat Truck
10. Ordering



# REPAIR' COMPARE

Shade the circle (tire) under each fraction to represent the equation. Then use  $<$  or  $>$  to compare the sets.

1

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

Illustration of a car with two tires. The left tire is divided into four quadrants, with the bottom-right quadrant shaded green. The right tire is also divided into four quadrants, with the bottom-right quadrant shaded green. Below the car is a mechanic wearing a hard hat and holding a wrench and a screwdriver.

2

$\frac{3}{6} \bigcirc \frac{2}{6}$

Illustration of a car with two empty tires. Below the car is a mechanic wearing a hard hat and holding a wrench and a screwdriver.

3

$\frac{5}{8} \bigcirc \frac{6}{8}$

Illustration of a car with two empty tires. Below the car is a mechanic wearing a hard hat and holding a wrench and a screwdriver.

4

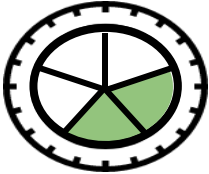
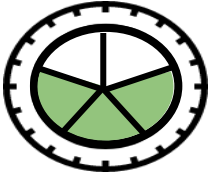
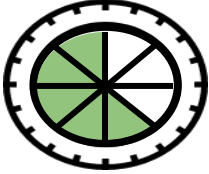


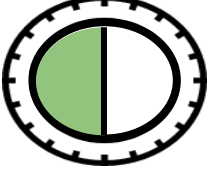

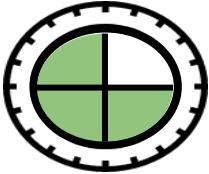
$\frac{3}{3} \bigcirc \frac{2}{3}$

Illustration of a car with two empty tires. Below the car is a mechanic wearing a hard hat and holding a wrench and a screwdriver.



# WHEEL OF FRACTIONS

Use the fraction wheels to complete the missing fractions, and use the symbols  $<$ ,  $>$  and  $=$  to show how the fractions compare. The first one is done for you.

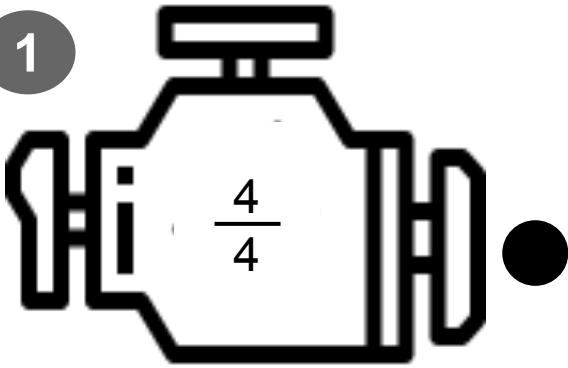
 1 $\frac{2}{5}$ <input type="text" value="&lt;"/> $\frac{3}{5}$	 2 <input type="text" value="—"/> <input type="text" value="—"/>
 3 <input type="text" value="—"/> <input type="text" value="—"/>	 4 <input type="text" value="—"/> <input type="text" value="—"/>
 5 <input type="text" value="—"/> <input type="text" value="—"/>	 6 <input type="text" value="—"/> <input type="text" value="—"/>
 7 <input type="text" value="—"/> <input type="text" value="—"/>	 8 <input type="text" value="—"/> <input type="text" value="—"/>



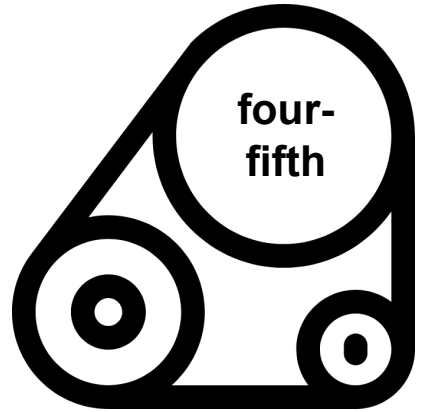
# FRACTOOL

Below are the tools with fractions in it. Draw a line to connect the tools with the same or equal fraction word.

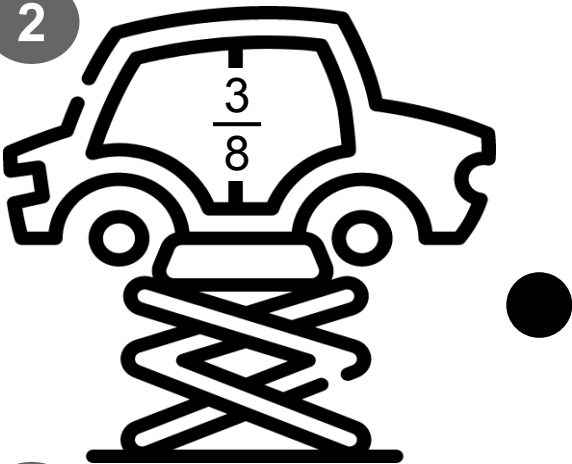
1



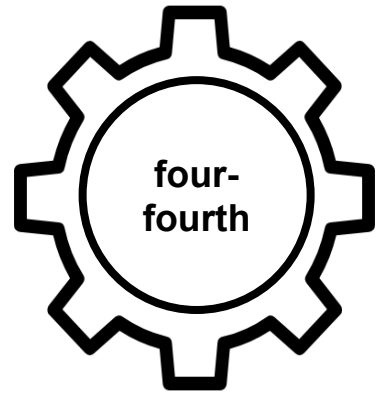
A.



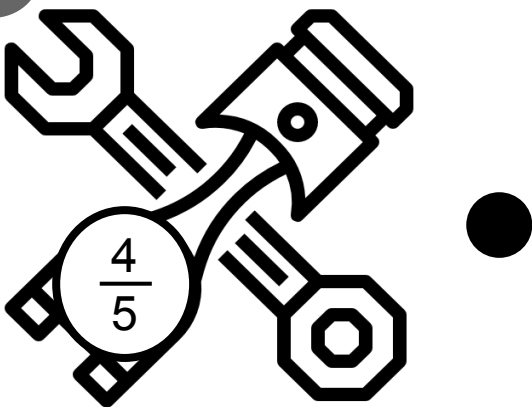
2



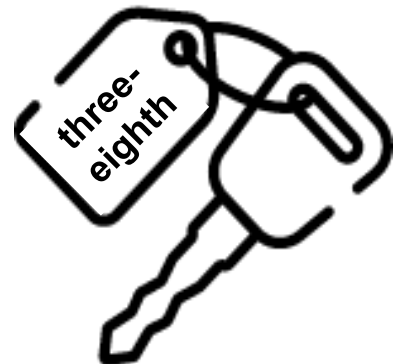
B.



3



C.



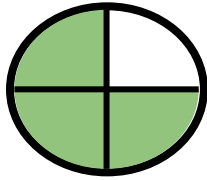


# FIX LESS

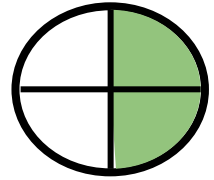
Below is a car that needs to be fixed. Help Marcus to fix it by putting a check inside the box of a fraction which is less.

1

$\frac{3}{4}$

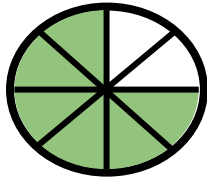


$\frac{2}{4}$

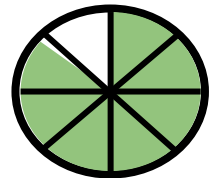


2

$\frac{6}{8}$

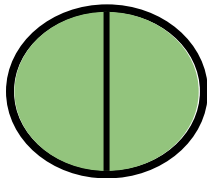


$\frac{7}{8}$

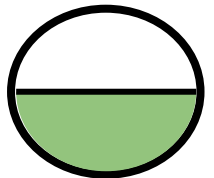


3

$\frac{2}{2}$

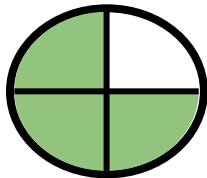


$\frac{1}{2}$

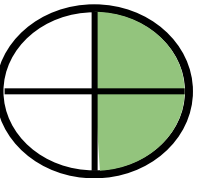


4

$\frac{3}{4}$



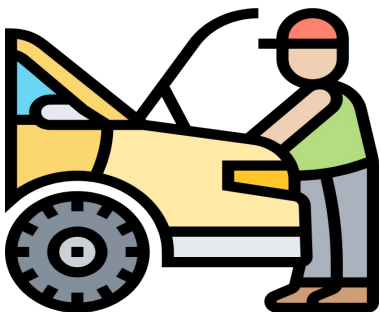
$\frac{2}{4}$



When do we say that a fraction is less than the other?

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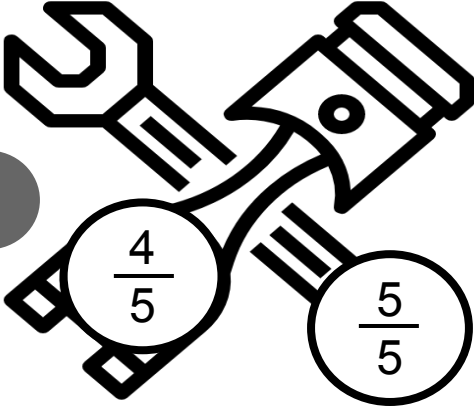
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# WHICH TOOL?

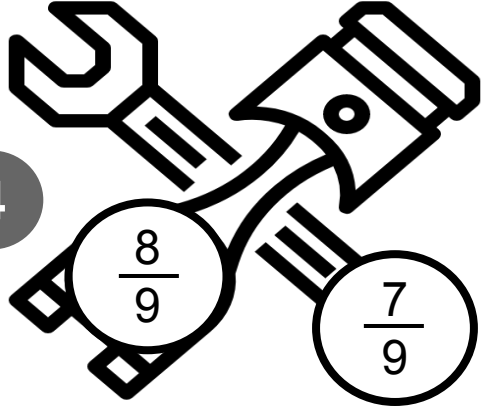
Compare the fractions and color the circle that has the greater value. Use a green color.

1



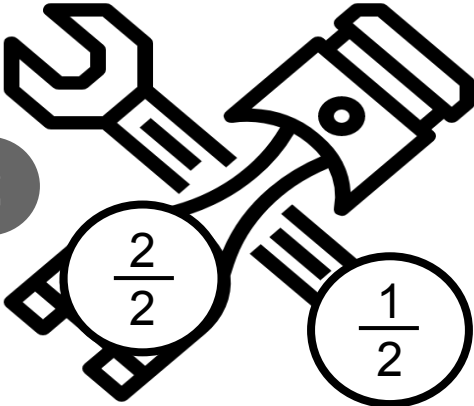
$\frac{4}{5}$   $\frac{5}{5}$

4



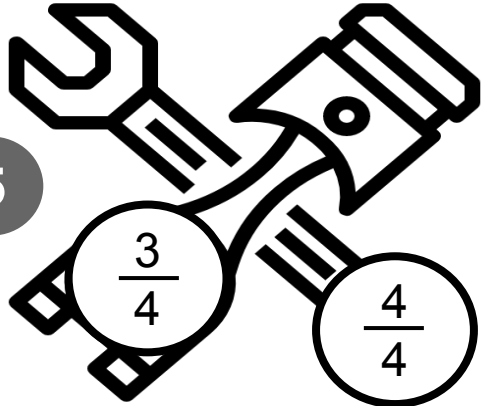
$\frac{8}{9}$   $\frac{7}{9}$

2



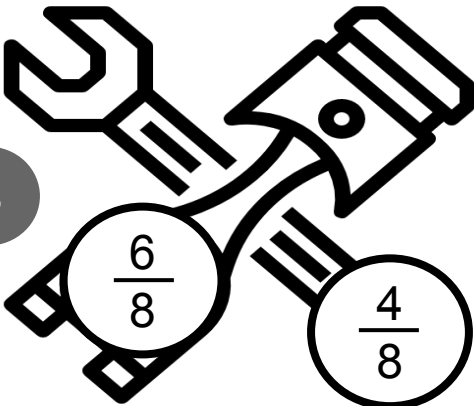
$\frac{2}{2}$   $\frac{1}{2}$

5



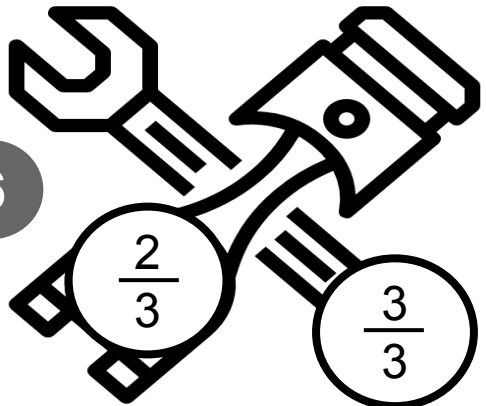
$\frac{3}{4}$   $\frac{4}{4}$

3



$\frac{6}{8}$   $\frac{4}{8}$

6

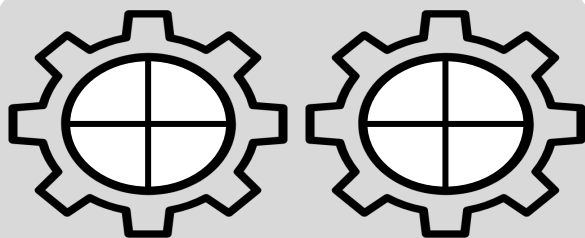


$\frac{2}{3}$   $\frac{3}{3}$

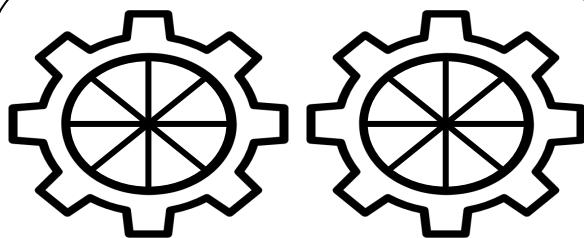


# SCREW LOCK

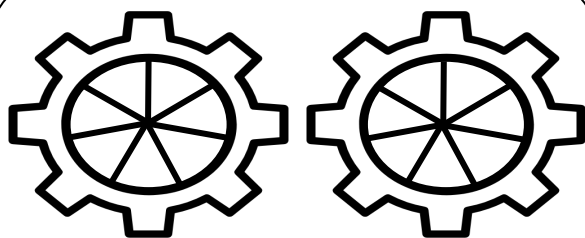
Shade the correct fraction on each screw lock. Then compare each pair of fractions by using  $<$ ,  $>$ , and  $=$ .



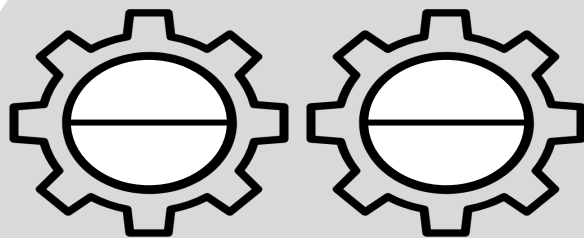
1.  $\frac{3}{4}$    $\frac{1}{4}$



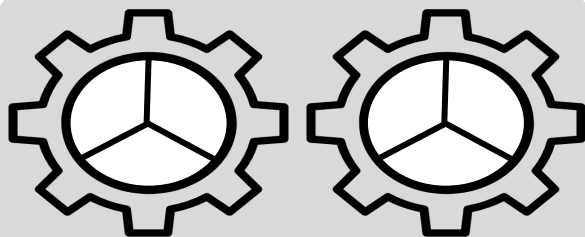
2.  $\frac{5}{8}$    $\frac{5}{8}$



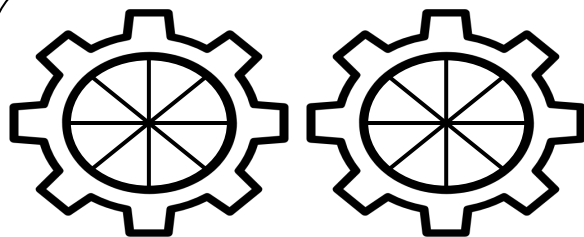
3.  $\frac{2}{7}$    $\frac{6}{7}$



4.  $\frac{1}{2}$    $\frac{1}{2}$



5.  $\frac{3}{3}$    $\frac{1}{3}$

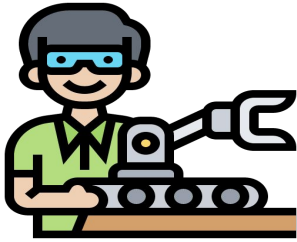


6.  $\frac{7}{8}$    $\frac{8}{8}$

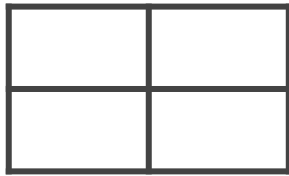


# CARS AND PARTS

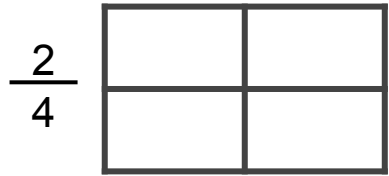
Have some fun with cars by completing the following tasks.



Color the shapes to show the given fractions.



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

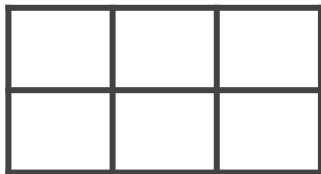


$$\frac{2}{4}$$



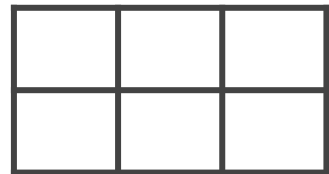
$$\frac{5}{10}$$

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

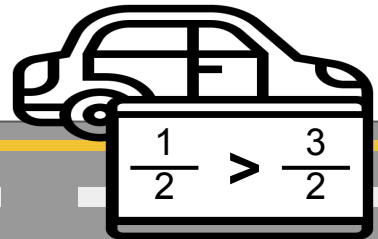
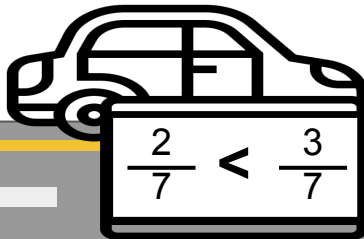
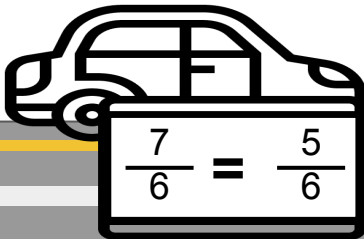
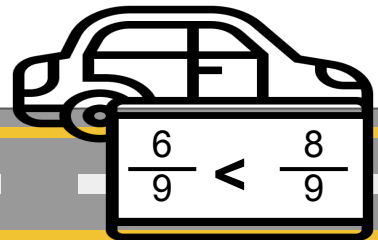
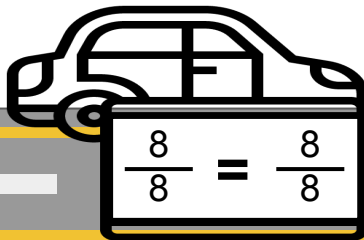
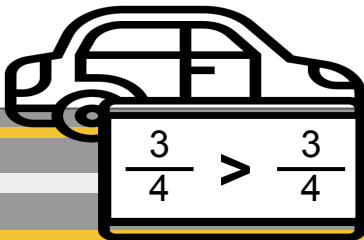


$$\frac{6}{6}$$

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



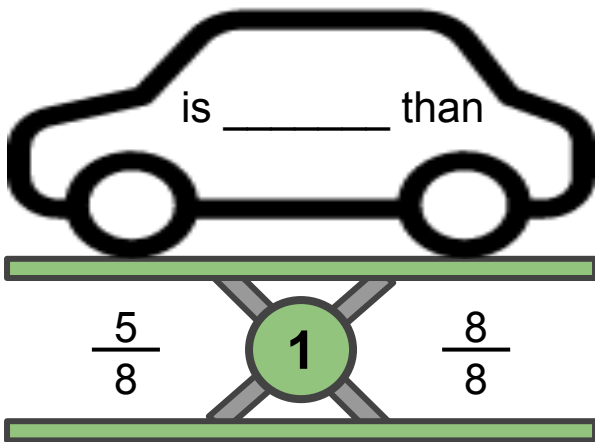
Encircle the statements that are correct.



# CAR SERVICE

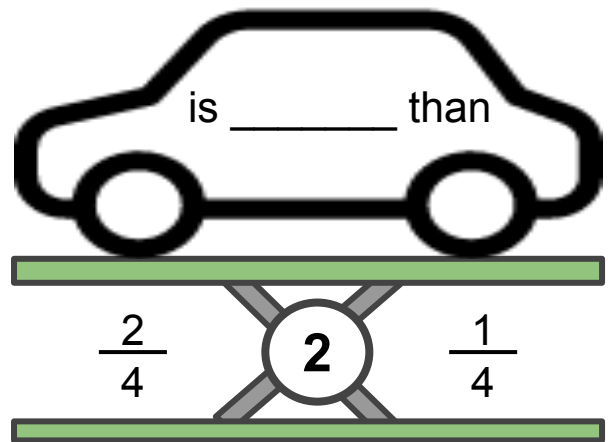
Provide a car service by completing the statements below. Use the terms greater or less to indicate comparison.

is \_\_\_\_\_ than



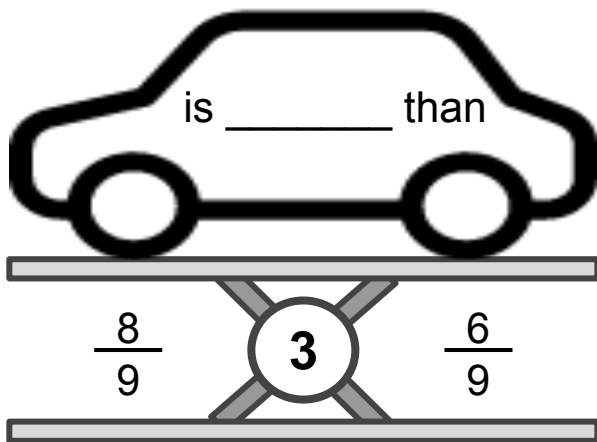
$\frac{5}{8}$        $\frac{8}{8}$

is \_\_\_\_\_ than



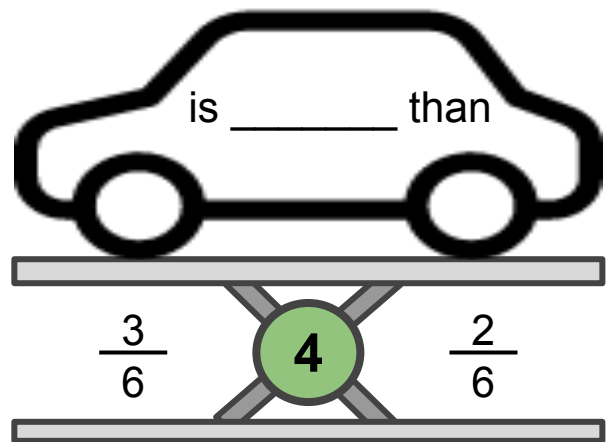
$\frac{2}{4}$        $\frac{1}{4}$

is \_\_\_\_\_ than



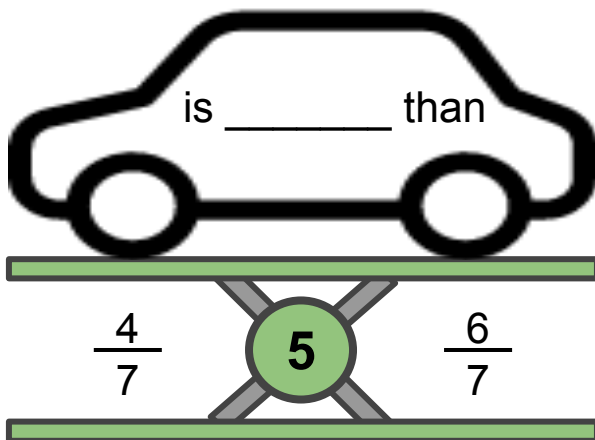
$\frac{8}{9}$        $\frac{6}{9}$

is \_\_\_\_\_ than



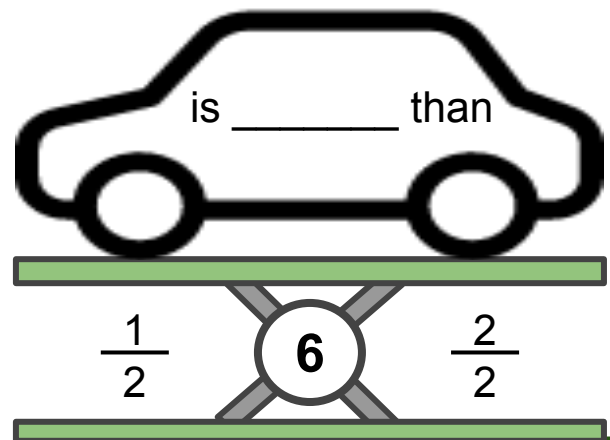
$\frac{3}{6}$        $\frac{2}{6}$

is \_\_\_\_\_ than



$\frac{4}{7}$        $\frac{6}{7}$

is \_\_\_\_\_ than

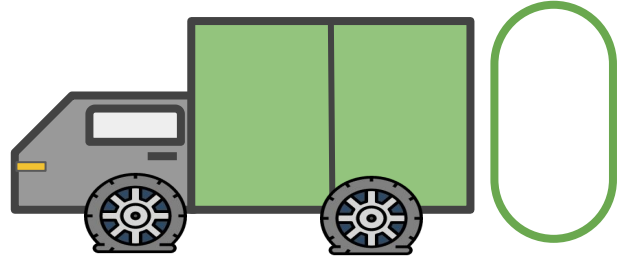
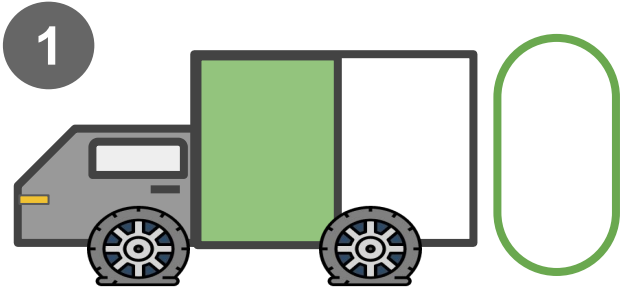


$\frac{1}{2}$        $\frac{2}{2}$

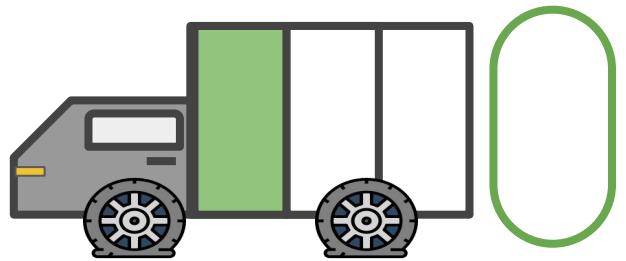
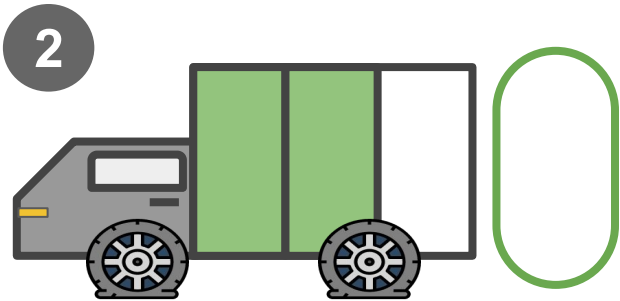


# FLAT TRUCK

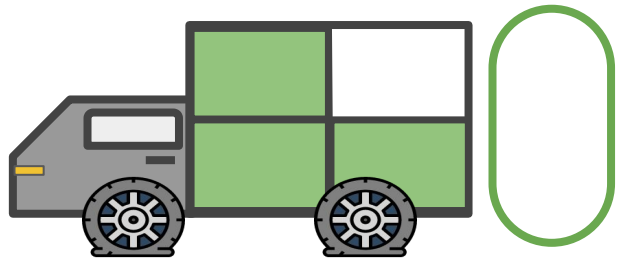
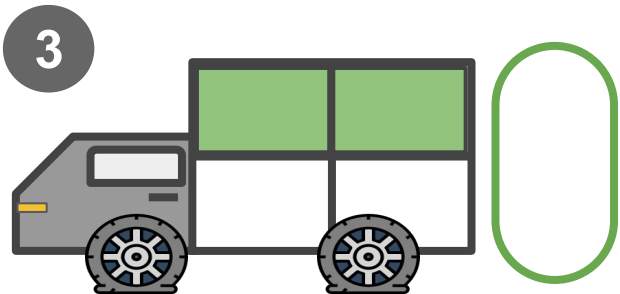
Look at the shaded area in each set of trucks below and write the corresponding fractions.



Which fraction is smaller? \_\_\_\_\_



Which fraction is greater? \_\_\_\_\_



Which fraction is smaller? \_\_\_\_\_



## ORDERING

Write the fractions in order using "greater than" and "less than" symbols as shown.

$$\frac{1}{3} \quad \frac{4}{3} \quad \frac{2}{3}$$

\_\_\_ > \_\_\_ > \_\_\_

$$\frac{6}{8} \quad \frac{3}{8} \quad \frac{5}{8}$$

\_\_\_ > \_\_\_ > \_\_\_

$$\frac{2}{15} \quad \frac{1}{15} \quad \frac{7}{15}$$

\_\_\_ > \_\_\_ > \_\_\_

$$\frac{3}{4} \quad \frac{1}{4} \quad \frac{2}{4}$$

\_\_\_ < \_\_\_ < \_\_\_

$$\frac{5}{6} \quad \frac{6}{6} \quad \frac{3}{6}$$

\_\_\_ < \_\_\_ < \_\_\_

$$\frac{7}{13} \quad \frac{5}{13} \quad \frac{10}{13}$$

\_\_\_ < \_\_\_ < \_\_\_

$$\frac{2}{2} \quad \frac{1}{2} \quad \frac{3}{2}$$

\_\_\_ > \_\_\_ > \_\_\_

$$\frac{6}{9} \quad \frac{7}{9} \quad \frac{8}{9}$$

\_\_\_ < \_\_\_ < \_\_\_

$$\frac{1}{5} \quad \frac{5}{5} \quad \frac{3}{5}$$

\_\_\_ > \_\_\_ > \_\_\_



# ANSWER GUIDE

## Activity 1

1. <    2. >    3. <    4. >

## Activity 2

1.  $\frac{2}{5} < \frac{3}{5}$                       5.  $\frac{2}{3} > \frac{1}{3}$   
2.  $\frac{4}{4} = \frac{4}{4}$                         6.  $\frac{1}{2} < \frac{2}{2}$   
3.  $\frac{5}{8} > \frac{4}{8}$                         7.  $\frac{6}{6} = \frac{6}{6}$   
4.  $\frac{2}{6} < \frac{5}{6}$                         8.  $\frac{3}{4} < \frac{4}{4}$

## Activity 3

1. B                      2. C                      3. A

## Activity 4

1.  $\frac{2}{4}$                       2.  $\frac{6}{8}$                       3.  $\frac{1}{2}$

## Activity 5

1.  $\frac{5}{5}$                                       4.  $\frac{8}{9}$   
2.  $\frac{2}{2}$                                       5.  $\frac{4}{4}$   
3.  $\frac{6}{8}$                                       6.  $\frac{3}{3}$

## Activity 6

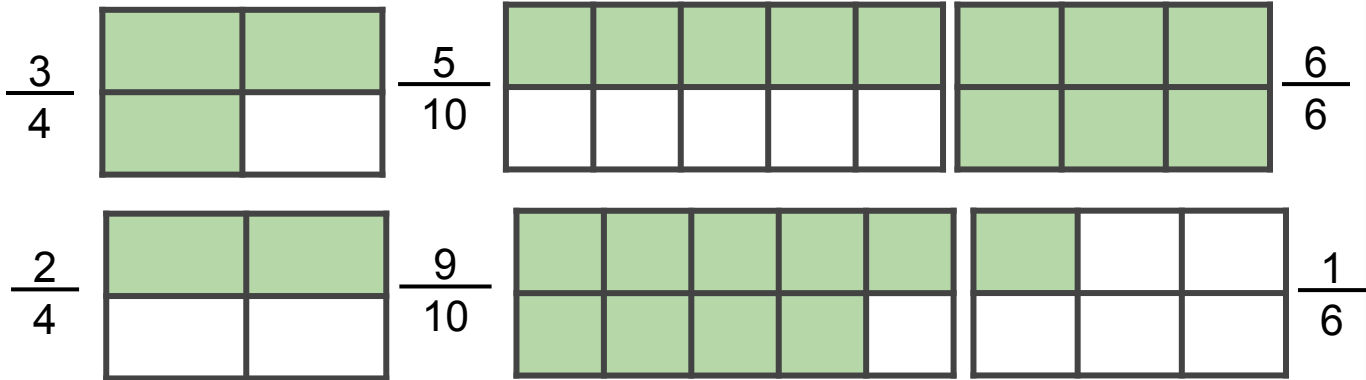
1. >                                      4. =  
2. =                                      5. >  
3. <                                      6. <





# ANSWER GUIDE

## Activity 7



## Activity 8

1. less      2. Greater      3. greater
4. greater      5. Less      6. less

## Activity 9

1.  $1/2, 2/2$  -  $1/2$  is smaller
2.  $2/3, 1/3$  -  $2/3$  is greater
3.  $2/4, 3/4$  -  $2/4$  is smaller

## Activity 10

$4/3 > 2/3 > 1/3$	$6/8 > 5/8 > 3/8$	$7/15 > 2/15 > 1/15$
$1/4 < 2/4 < 3/4$	$3/6 < 5/6 < 6/6$	$5/13 < 7/13 < 10/13$
$3/2 > 2/2 > 1/2$	$6/9 < 7/9 < 8/9$	$5/5 > 3/5 > 5/5$



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