

# *Unit 4 Module 3 Session 4*

## *Problems & Investigations-Fractions As Distances*

Getting Ready-

- TM T6 Double Number Line (see Preparation)
- 2 super magnets with hooks (see Preparation)
- a measuring tape
- heavy cotton string (see Preparation)
- copy paper (see Preparation) • scissors, class set
- a large paperclip for each student

# VOCABULARY

Distance

Eighth/eighths

Fourth/fourths

Fraction

Half/halves

I  
CAN



- Demonstrate an understanding of a unit fraction
- Show a unit fraction on a number line
- Compare 2 fractions with the same numerator
- Explain why one fraction must be greater or less than another fraction

NAME SOME  
UNIT FRACTIONS

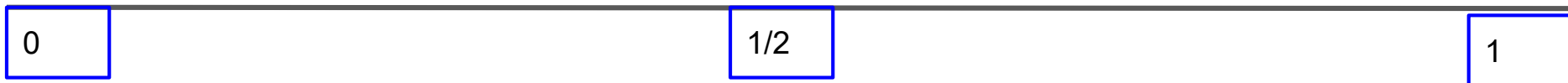


## Fractions as Differences



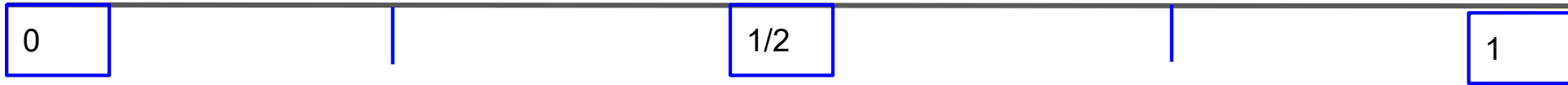
This number line represents one whole  
Where do you think we could place  $\frac{1}{2}$ ?

## Fractions as Differences



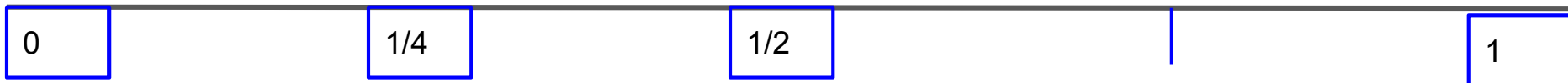
Where do you think we could place  $1/4$ ?  
Right now we have 2 equal parts. To find  $1/4$   
we need to have 4 equal parts.

## Fractions as Differences



We now have 4 equal parts. Each of them are fourths. Where should the  $\frac{1}{4}$  be placed?

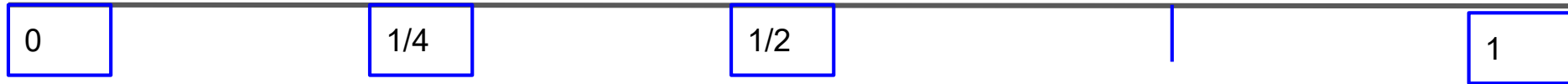
## Fractions as Differences



We now have 4 equal parts. Each of them are fourths. Where is the  $\frac{1}{4}$ ?

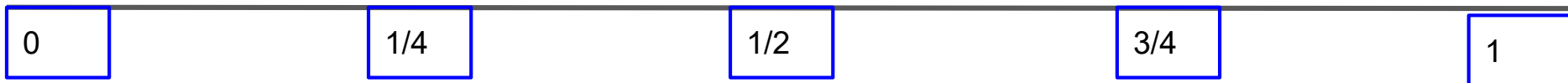


## Fractions as Differences



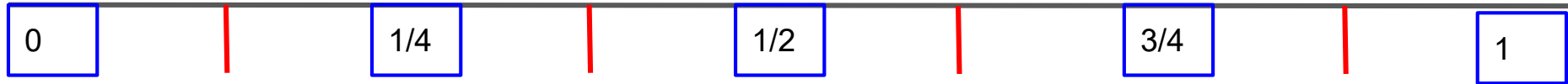
Where should  $\frac{3}{4}$  be placed?

## Fractions as Differences



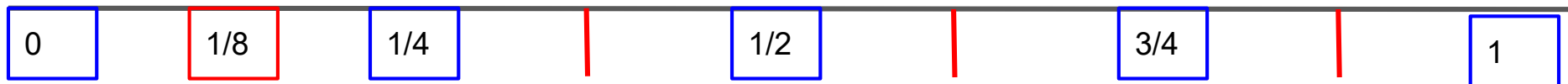
Where should  $1/8$  be placed? Hmm, with  $1/4$  you needed 4 equal parts. So what do you need with **eighths**?

## Fractions as Differences

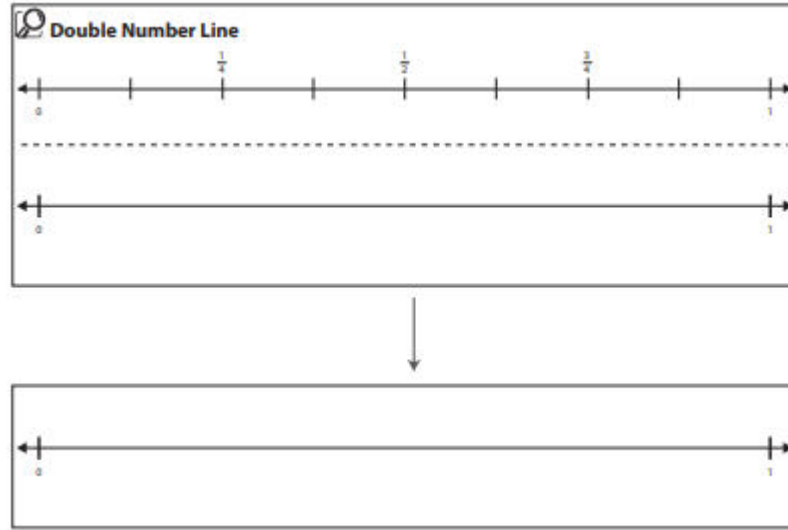
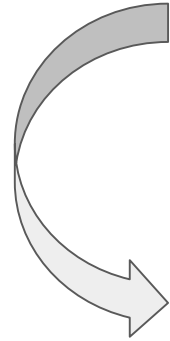


8 equal parts!! Where would  $\frac{1}{8}$  go?

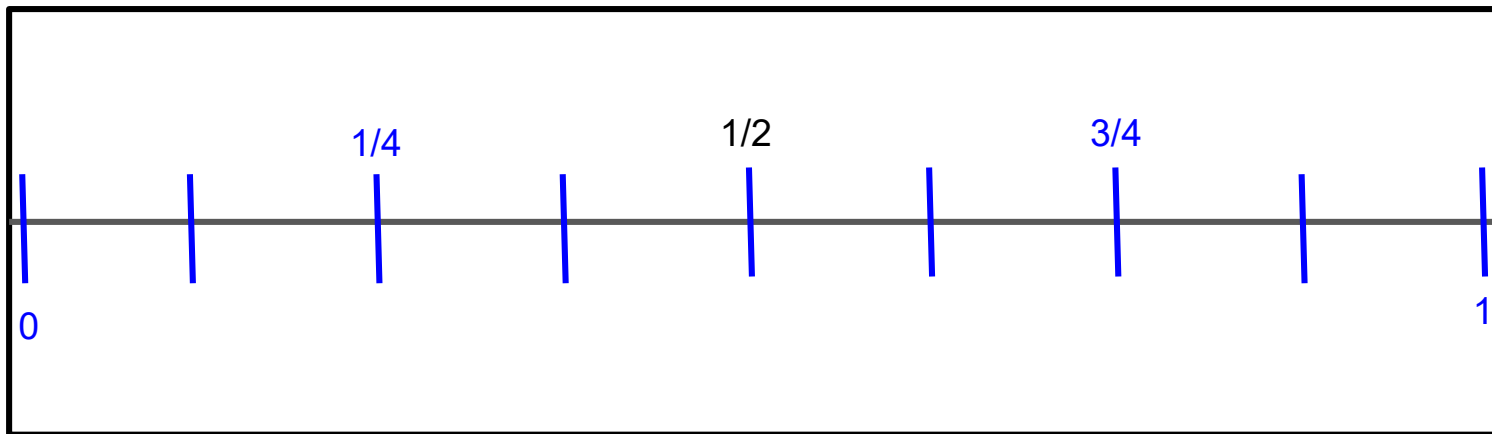
# Fractions as Differences



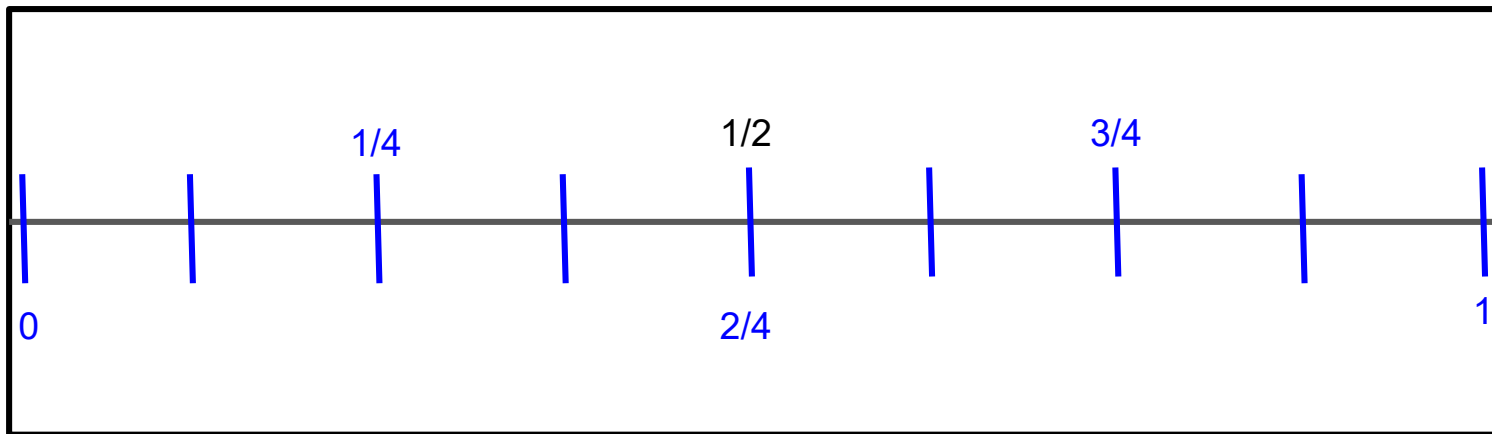
Pass out Double  
Number Line sheet  
and paper clips.



Without looking can you place the paper clip on the  $\frac{1}{2}$ ?

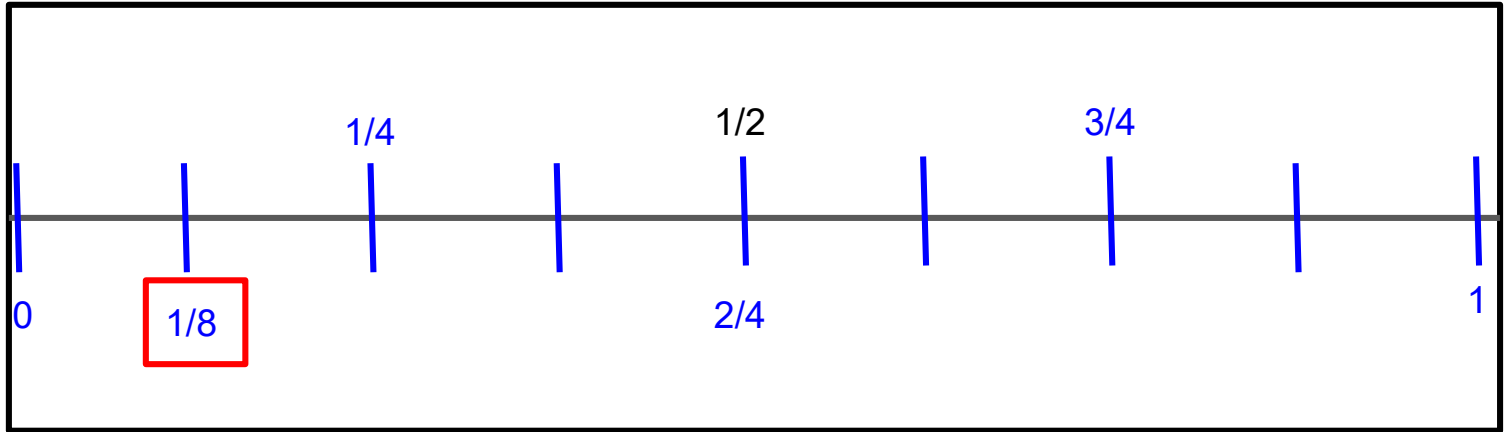


Where would  $2/4$  go?



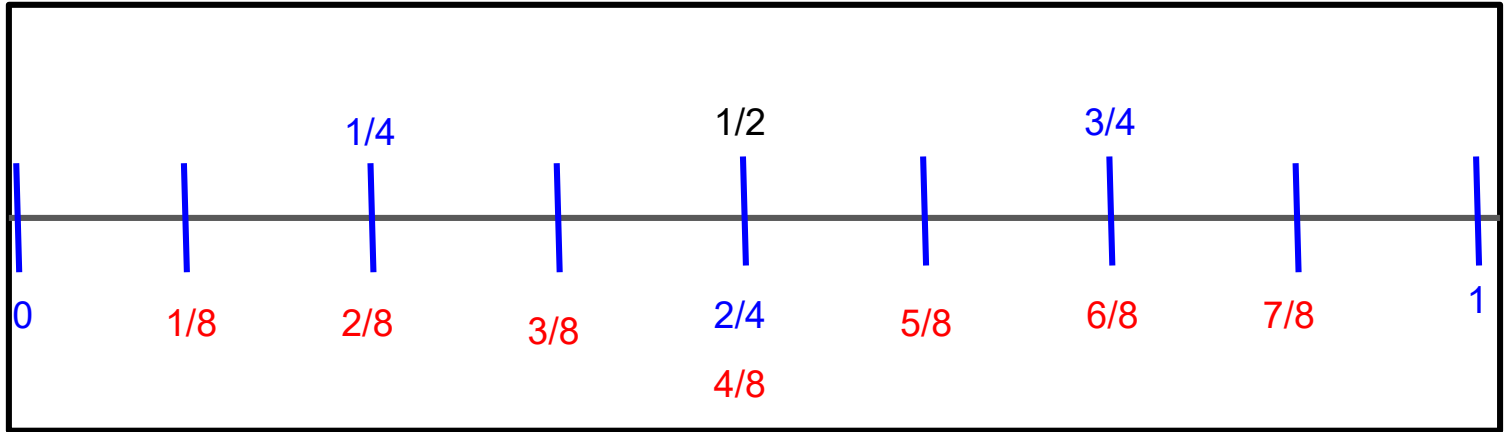
What??? It's equivalent to  $\frac{1}{2}$ ?

How about  $\frac{1}{8}$ ?



Let's fill in the rest of the **eighths**.





WAIT ONE  
MINUTE!



$4/8$  is also = to  $1/2$ !!! So it must also be = to  $2/4$ . What other equivalent fractions can you find?

Let's check your understanding

Turn your double number line around again and I will ask you to place your paper clip at different fractions.

$\frac{1}{8}$ ,  $\frac{6}{8}$ ,  $\frac{3}{8}$ ,  $\frac{1}{4} + \frac{1}{4}$ ,  $\frac{1}{8} + \frac{1}{8}$

# ***Work Places***

3C Round Ball Hundreds

3D Round & Add Hundreds

4A Tic-Tac-Tock

4B Measurement Scavenger Hunt

4C Target One Thousand

4D Hexagon Spin & Fill

# *Daily Practice*

SB 133 The Broken Ruler, Part 1