

Grade 7 Warm Up

Date: Oct 19

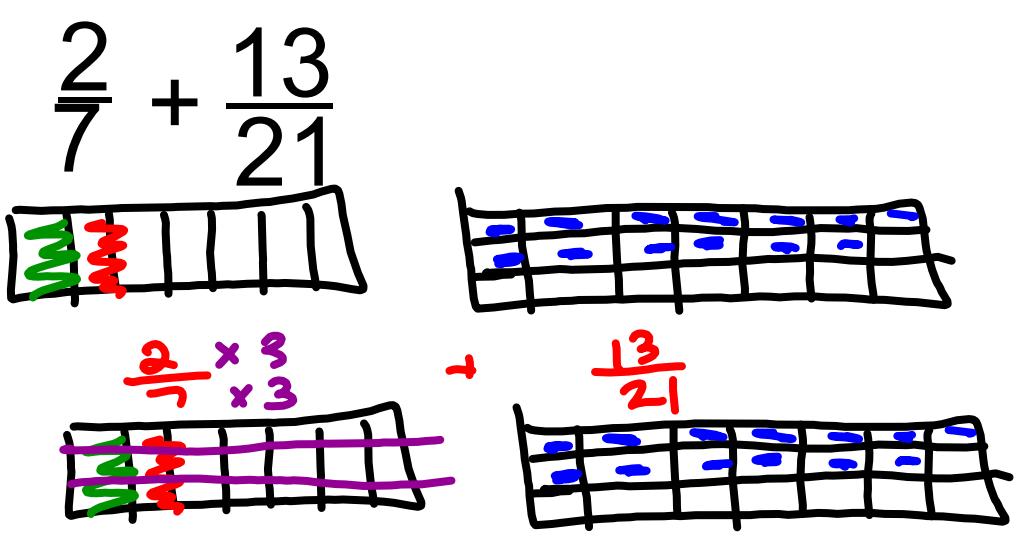
Go over Homework on next slides



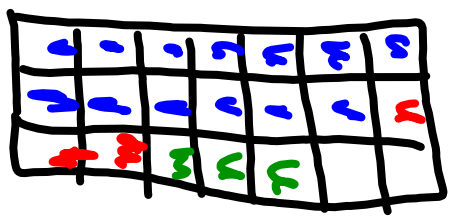
Then quiz Tomorrow

1) Model with fraction rectangles

$\frac{2}{7} + \frac{13}{21}$



$\frac{6}{21} + \frac{13}{21} = \frac{19}{21}$



2) Evaluate

a) $\frac{5}{6} + \frac{1}{8} + \frac{1}{2}$ (×4, ×3, ×12)

$\frac{20}{24} + \frac{3}{24} + \frac{12}{24}$

$= \frac{35}{24}$

$= 1\frac{11}{24}$

Sheet Extra Practice 3

3. a) $\frac{3}{5} + \frac{1}{10}$

$\frac{6}{10} + \frac{1}{10} = \frac{7}{10}$

b) $\frac{3}{10} + \frac{1}{2}$

$\frac{3}{10} + \frac{5}{10} = \frac{8}{10}$

c) $\frac{6}{8} + \frac{3}{4}$

$\frac{6}{8} + \frac{6}{8} = \frac{12}{8}$

d) $\frac{3}{8} + \frac{5}{2}$

$\frac{3}{8} + \frac{20}{8} = \frac{23}{8}$

4 a) $\frac{1}{4} + \frac{3}{10}$

$\frac{5}{20} + \frac{6}{20} = \frac{11}{20}$

b) $\frac{5}{6} + \frac{7}{8}$

$\frac{20}{24} + \frac{21}{24} = \frac{41}{24}$

c) $\frac{4}{3} + \frac{1}{6}$

$\frac{8}{6} + \frac{1}{6} = \frac{9}{6}$

d) $\frac{7}{2} + \frac{3}{8}$

$\frac{28}{8} + \frac{3}{8} = \frac{31}{8}$

5. a) sports with a ball

$\frac{1}{4} + \frac{1}{9} + \frac{1}{12}$

$\frac{9}{36} + \frac{4}{36} + \frac{3}{36} = \frac{16}{36}$

b) played on a court

$\frac{1}{9} + \frac{1}{12}$

$\frac{4}{36} + \frac{3}{36} = \frac{7}{36}$

c) winter sports

$\frac{1}{3} + \frac{1}{6}$

$\frac{2}{6} + \frac{1}{6} = \frac{3}{6}$ or $\frac{1}{2}$

d) uses a .net

$\frac{1}{9} \times \frac{4}{4} + \frac{1}{3} \times \frac{12}{12} + \frac{1}{12} \times \frac{3}{3}$

$\frac{4}{36} + \frac{12}{36} + \frac{3}{36} = \frac{19}{36}$

6. $\frac{7}{8} + \frac{3}{4}$ or $\frac{5}{6} + \frac{3}{5}$

$\frac{7}{8}$ is closer to 1

$\frac{3}{4} > \frac{3}{5}$

so $\frac{7}{8} + \frac{3}{4}$ is greater

or

$\frac{7}{8} + \frac{6}{8} = \frac{13}{8}$

$1\frac{5}{8}$

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

$\frac{25}{30} + \frac{18}{30} = \frac{43}{30}$

$1\frac{13}{30}$

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

pg 190

1 a) $\frac{3}{5} + \frac{3}{10}$

$\frac{6}{10} + \frac{3}{10} = \frac{9}{10}$

2. $\frac{5}{12} + \frac{3}{6}$

$\frac{5}{12} + \frac{6}{12} = \frac{11}{12}$

3 a) $\frac{1}{2} + \frac{5}{12}$

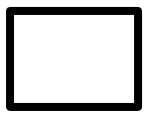
$\frac{6}{12} + \frac{5}{12} = \frac{11}{12}$

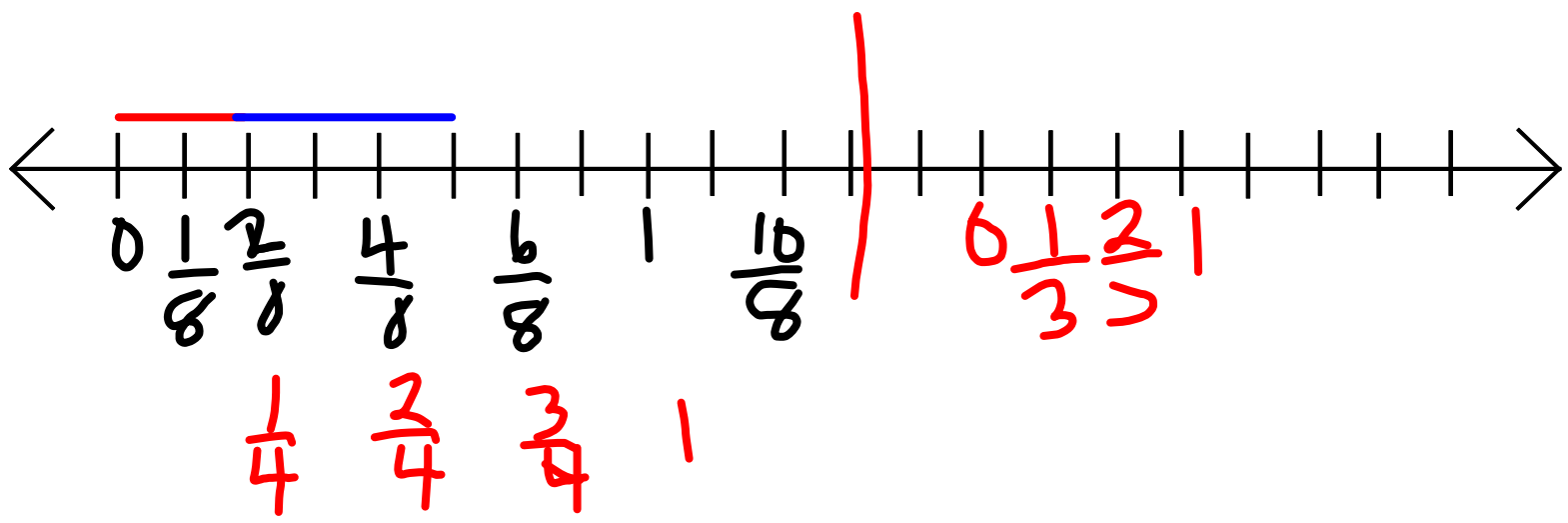
b) $\frac{2}{3} + \frac{3}{4}$

$\frac{8}{12} + \frac{9}{12} = \frac{17}{12}$

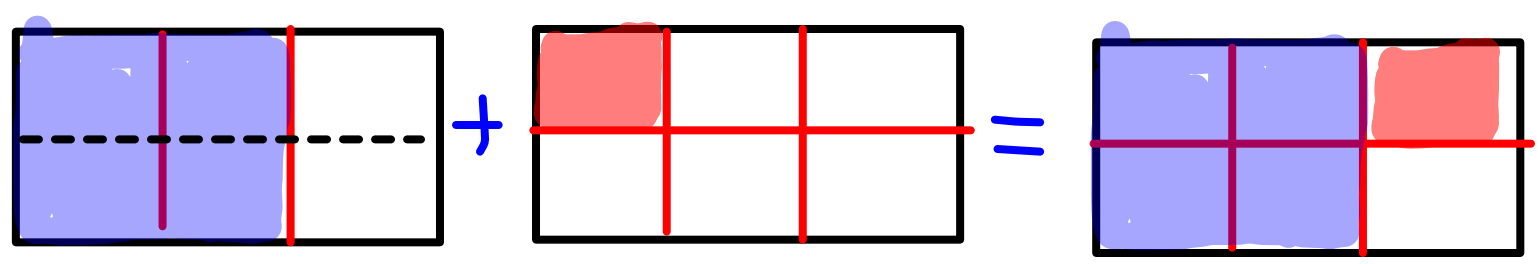
Orally discuss pg 190, then quiz.

4a $\frac{2}{8} + \frac{3}{8} = \frac{5}{8}$

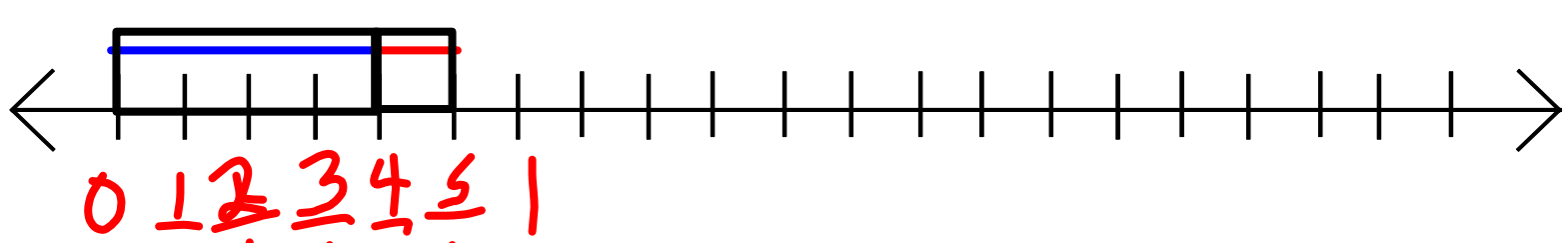


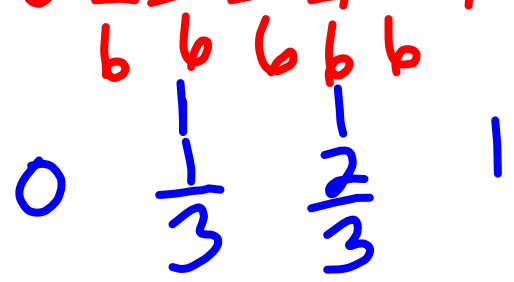


4b. $\frac{2}{3} + \frac{1}{6}$



$= \frac{5}{6}$

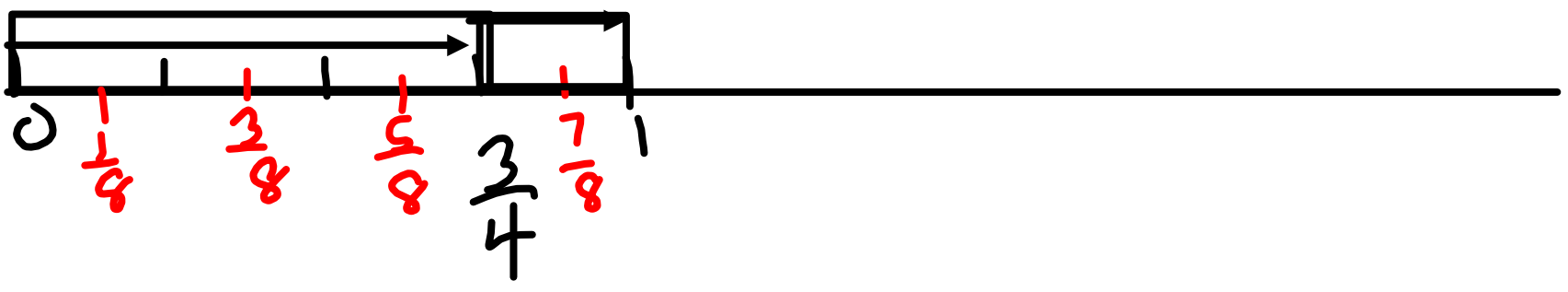




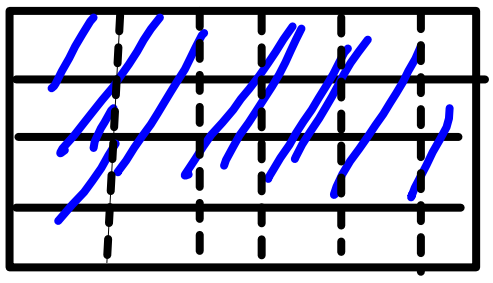
$\frac{2}{3} + \frac{1}{6}$

$\frac{4}{6} + \frac{1}{6} = \frac{5}{6}$

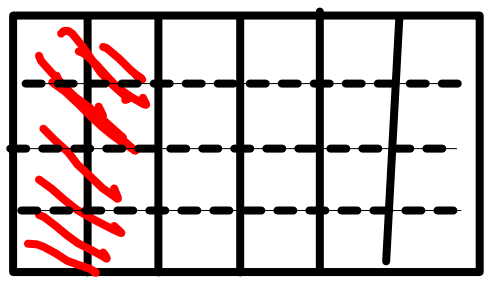
3/4 $\frac{3}{4} + \frac{2}{8} = 1$ or $\frac{8}{8}$ 2/8



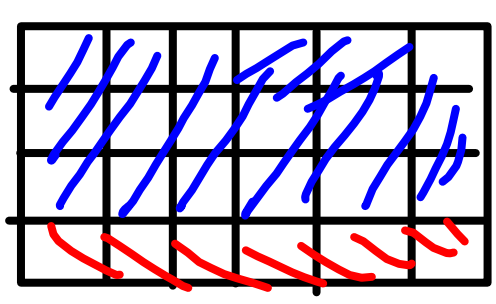
c) $\frac{3}{4} + \frac{2}{6}$

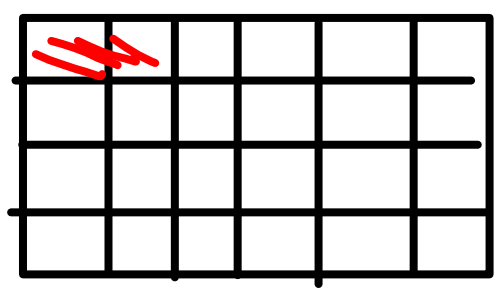


$\frac{18}{24}$ +



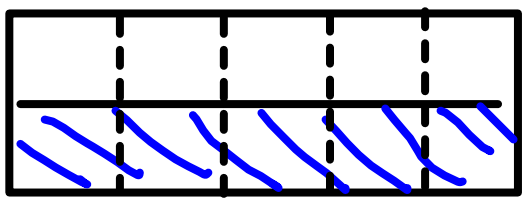
$\frac{8}{24}$ =



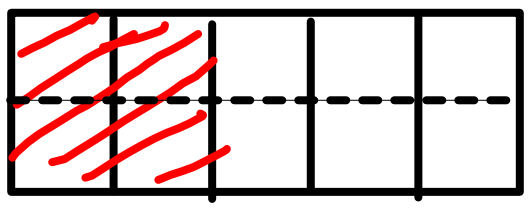


$\frac{26}{24}$ or $1\frac{2}{24}$

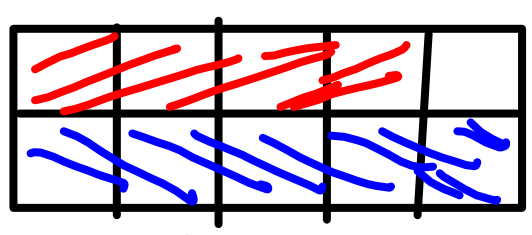
d) $\frac{1}{2} + \frac{2}{5}$



$\frac{5}{10}$ +



$\frac{4}{10}$ =

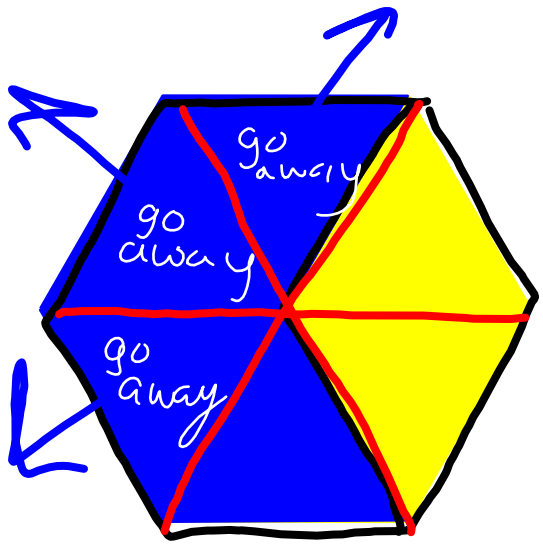


$\frac{9}{10}$

Using Models to Subtracting Fractions

Let's use pattern blocks...

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



$$\frac{2}{3} \times \frac{2}{2} - \frac{1}{2} \times \frac{3}{3}$$

$$\frac{4}{6} - \frac{3}{6}$$

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

Subtracting Fractions with Modelling

Use Fraction Blocks/Circles to model:

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

$\frac{4}{6} - \frac{3}{6}$

$\frac{1}{6}$

When we started to add fractions with models we discovered that common denominators helped us, will it help with subtraction?

Model both and break into the same amount of pieces (common denominator).

The second fraction is just to show how many you subtract from the first.

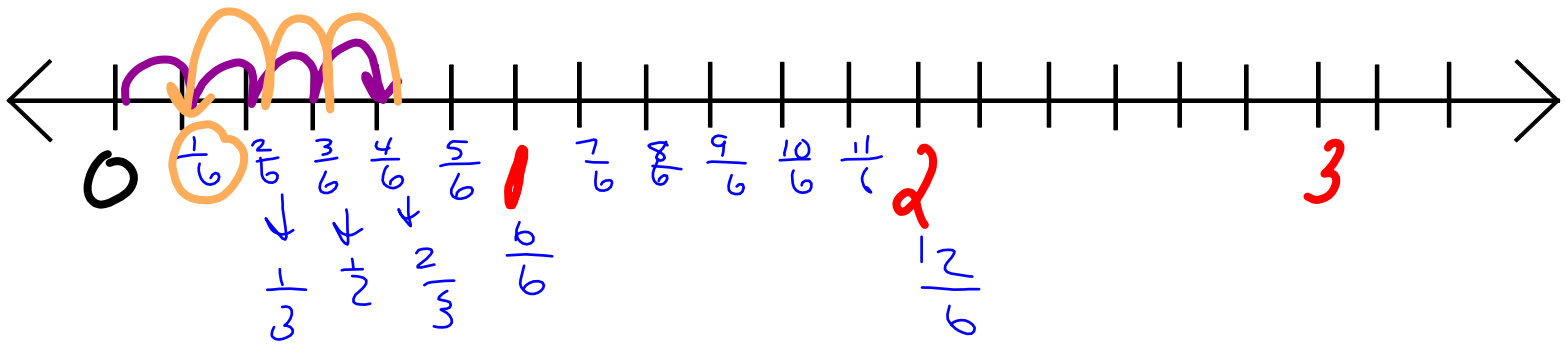
To subtract circle the blocks in the first fraction and use an arrow to show subtract.

Number line Method

Use the common denominators to help

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

$\frac{4}{6} - \frac{3}{6} = \frac{1}{6}$ ← Bottom # tells # of Jump in 1 whole

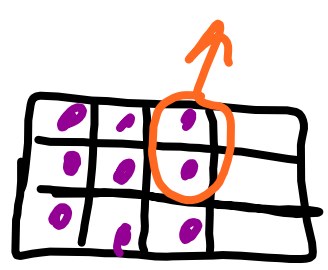


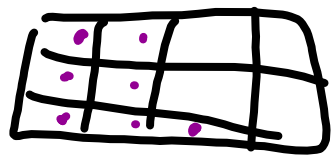
Subtracting Fractions with Modelling

Use Fraction Blocks/Circles to model:

$\frac{3}{4} \times 3 = \frac{9}{12}$ $\quad - \quad \frac{1}{6} \times 2 = \frac{2}{12}$

$= \frac{7}{12}$





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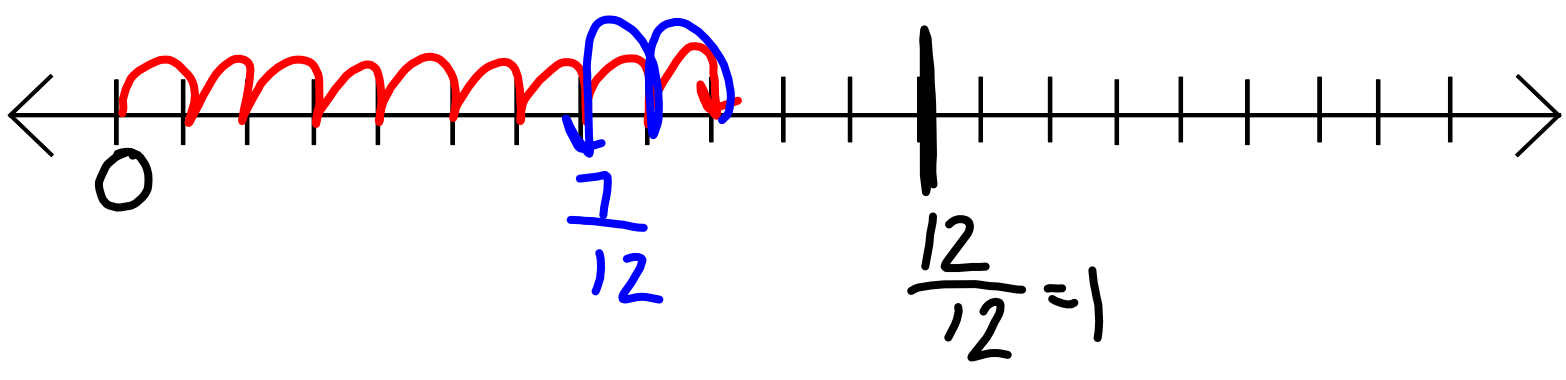
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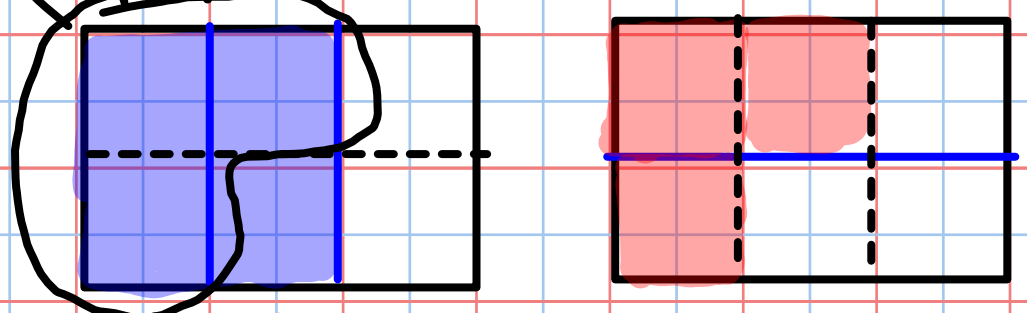
$\frac{3}{4} - \frac{1}{6}$

$\frac{9}{12} - \frac{2}{12}$

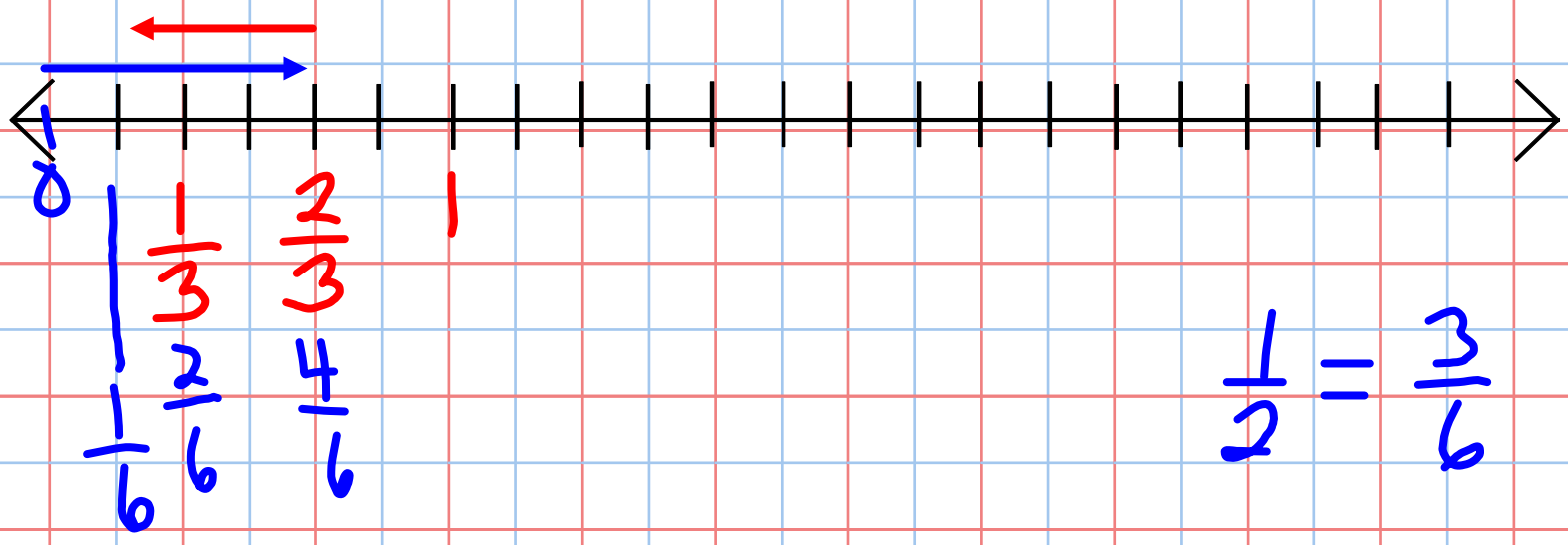


Subtracting Fractions with Modelling

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

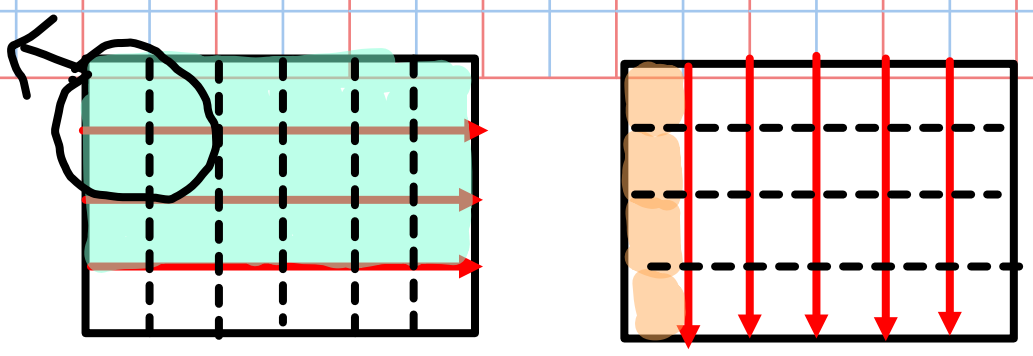


$\frac{4}{6} - \frac{3}{6} = \frac{1}{6}$



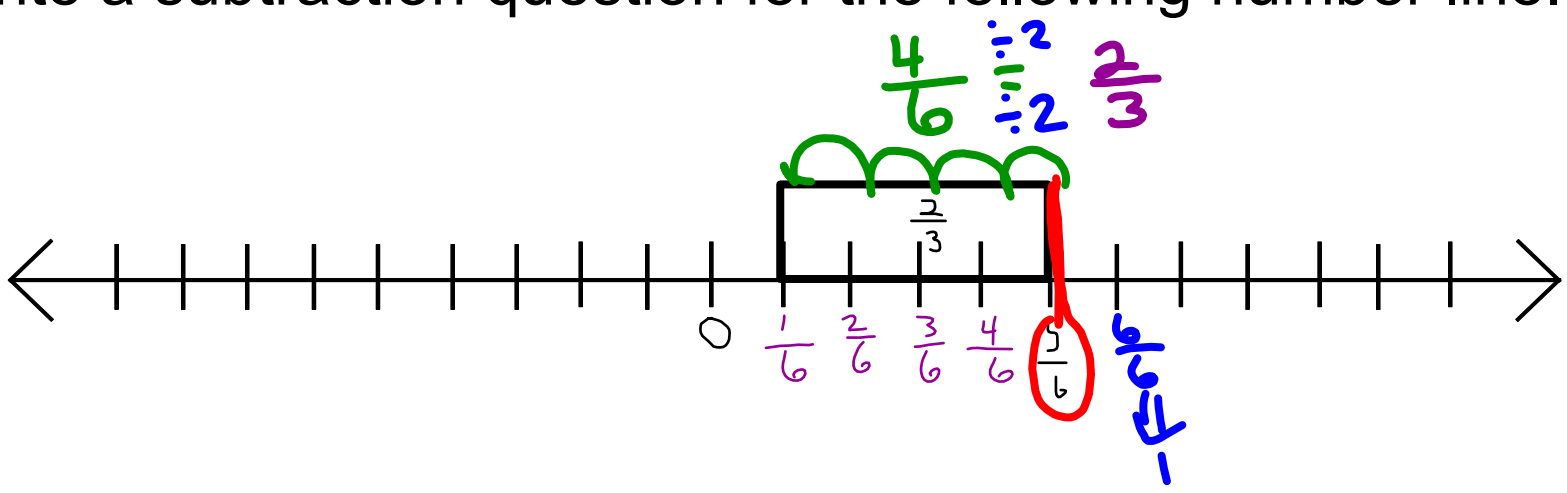
$\frac{1}{2} = \frac{3}{6}$

$\frac{3}{4} - \frac{1}{6}$



$\frac{18}{24} - \frac{4}{24} = \frac{14}{24}$

Write a subtraction question for the following number line.



Hint: (Largest number where box ends) - (box size) = (start of box)

$$\left(\frac{5}{6}\right) - \left(\frac{4}{6}\right) = \frac{1}{6}$$

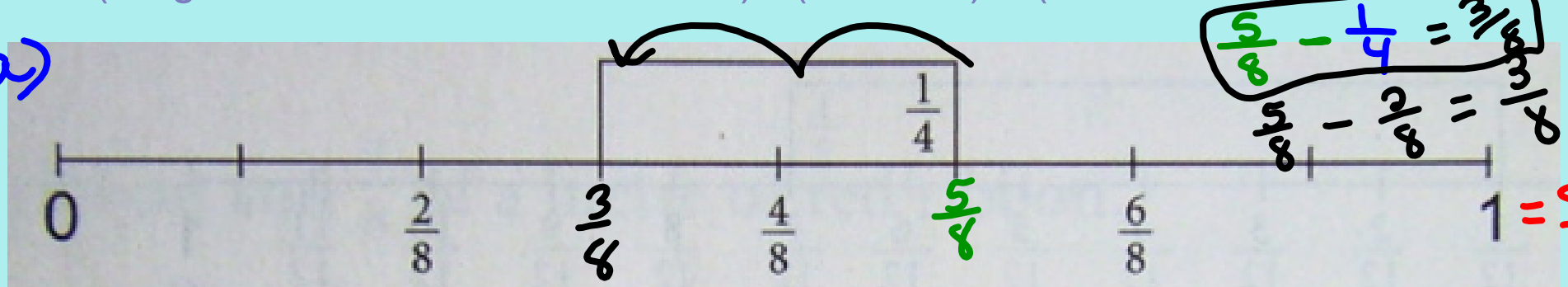
↓Reduce

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

Write a subtraction equation for each picture.

Hint: (Largest number where box ends) - (box size) = (start of box)

a)

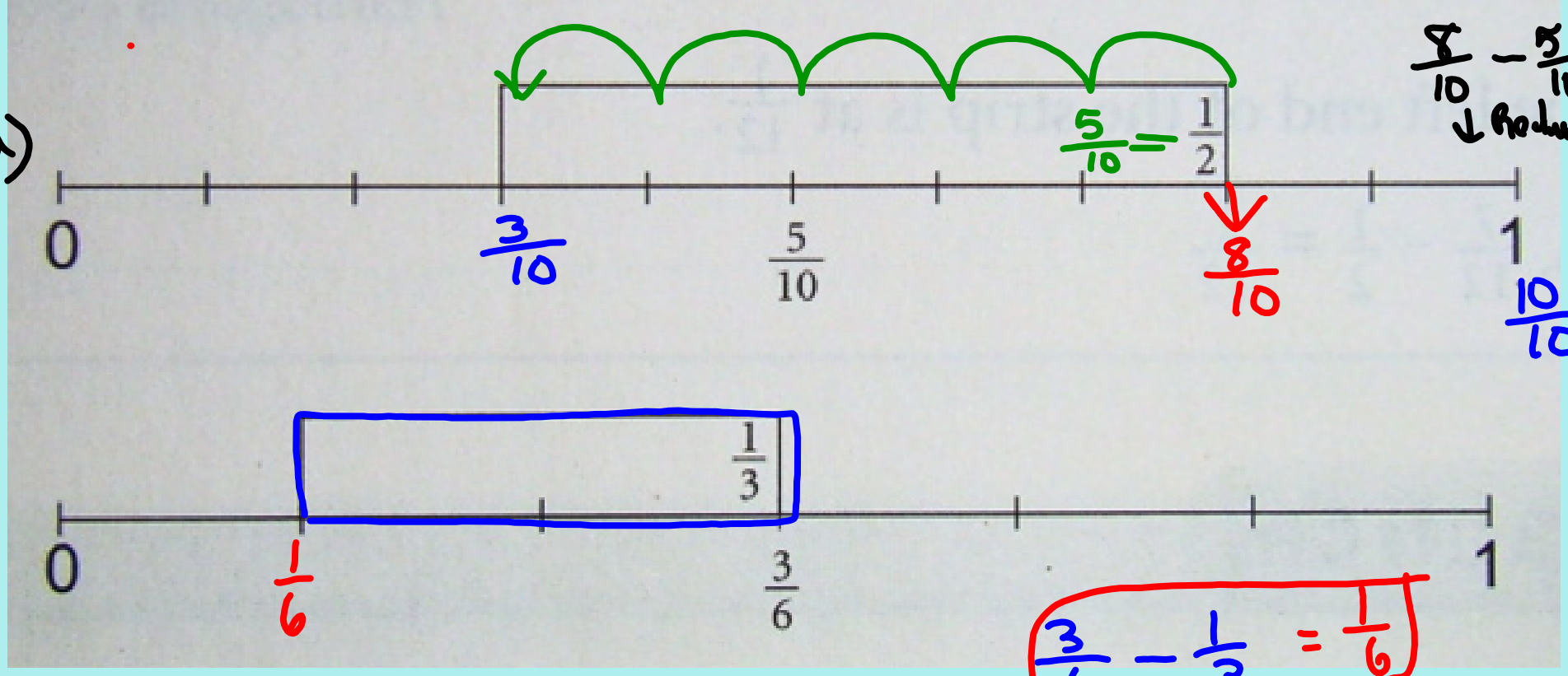


$\frac{5}{8} - \frac{1}{4} = \frac{3}{8}$

$\frac{5}{8} - \frac{2}{8} = \frac{3}{8}$

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

a)



$\frac{10}{10} - \frac{5}{10} = \frac{5}{10}$ ↓ Reduced Red

$\frac{3}{6} - \frac{1}{3} = \frac{1}{6}$

$\frac{3}{6} - \frac{3}{6} = \frac{1}{6}$

b) $\frac{4}{5} - \frac{1}{2} = \frac{3}{10}$

Write a subtract using a number line

Subtract: $\frac{5}{6} - \frac{1}{2}$ $\times 3$ $\times 3$

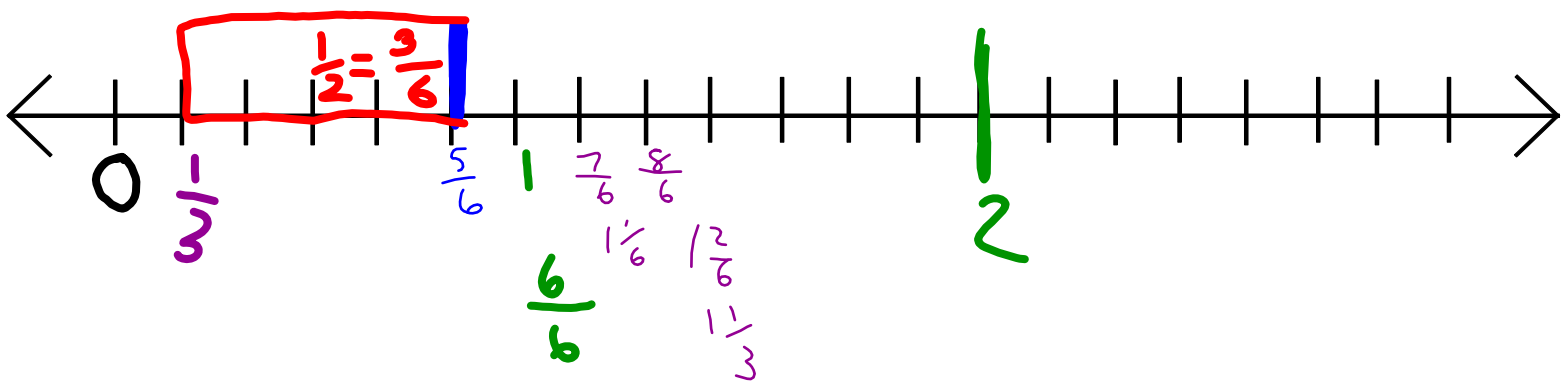
Think addition.
What do we add to $\frac{1}{2}$ to get $\frac{5}{6}$?

-Also CD helps

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

$\frac{2}{6}$ ← Reduce

$= \boxed{\frac{1}{3}}$



Class/Homework

Page 193 use C.D.

#1, 2, 3(model), 4a, 5, 6(model)

For number 2 work it out but also use the explanation below to answer

$\frac{1}{7}$

more or less than $\frac{1}{2}$

$1 - \frac{1}{2} = \frac{1}{2}$