Math 3 Classwork 26

Warm Up

1

Rewrite the expressions and do calculations in the column:

a) 3208 + 827 =

b) 3208 – 827 =

c) 8,568 ÷ 7 =

d) 827 × 17 =

2

Complete the sentences:

a) There are _____ seconds in a minute

b) There are _____ minutes in an hour

c) There are _____ seconds in a half a minute.

d) There are _____ seconds in 10 minutes

e) There are _____ hours a day

f) There are ____ hours in a half day

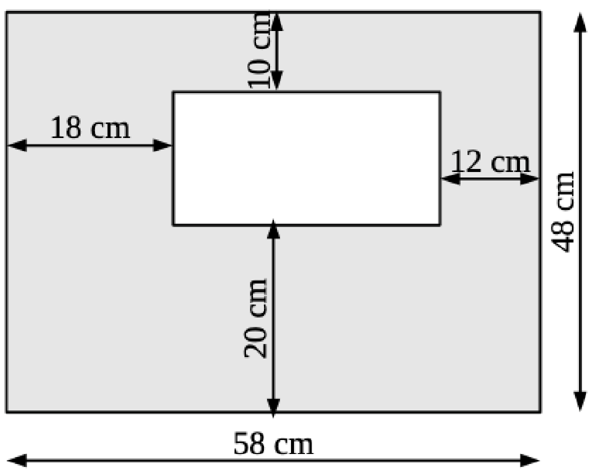
Homework Review

3 Insert a number to make an equality correct:

a) 2600 ÷ …. = 200 b) 600 ÷ … = 200 c) … ÷ 100 = 50

d) 250 × … = 5000 e) … × 20 = 600 f) … × 300 = 1500

4 Find the area of the part which is shaded grey. Think about the most optimal way to do it.

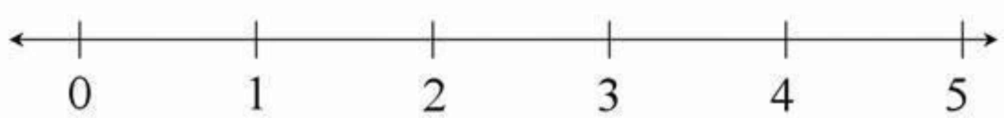


Area = ______________________

REVIEW I

5 <u>Find my position.</u>

Mark and label by a letter points on the number line for 3/2, 4/4, 6/2, 6/3, 5/4, and 6/4.



6 **Remember**: 1,000ml = 1 liter; 1,000g = 1kg;

a) Eli has a one-litre bottle of water and drinks half of it at lunchtime, how many ml are left?

____

b) 7 kg – ____ = $5\frac{1}{2}$ kg 3kg 200g + ___ = $4\frac{1}{2}$ kg

c) Steven has 3 bottles of water with 500 ml in each. Ronav has one bottle of water with 1 and a half liters in it. Who has the most water? ____

d) There are 12 liters of milk in a 12*l* bucket. How can you share this milk equally between two families using two empty buckets: 3*l* and 8*l*? ____

____

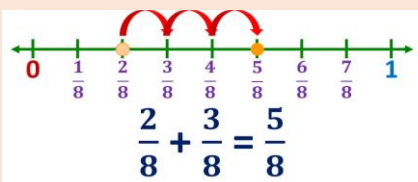
1/2, **1/4**, **2/3**, and **5/6** are all examples of fractions.
Fractions tell us about parts of a whole.
The **numerator** tells you the number of equal parts you have,
The **denominator** tells you the number of equal parts the whole is divided into.

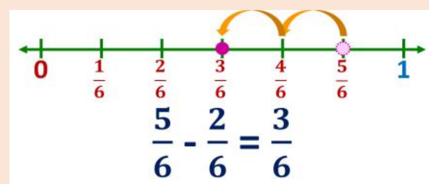
Notice how all these fractions have their numerators less than their denominators.
When the **numerator is less than the denominator**, then you have a **proper fraction**.

7 Where will you find all proper fractions on the number line?

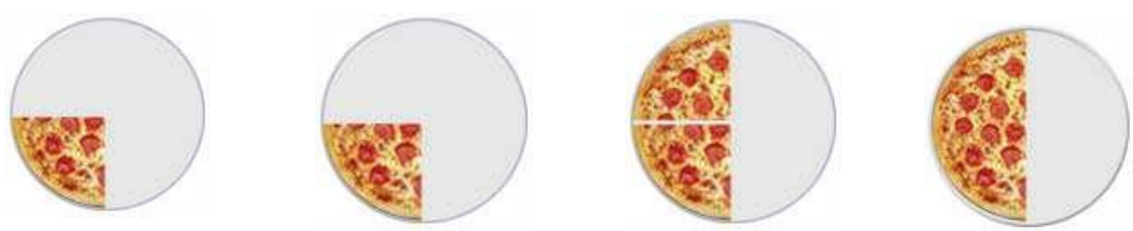
New Material I

When **adding or subtracting** two fractions with the **same denominators,** we **add or subtract their numerators**.





Example:



$\frac{1}{4}$ + $\frac{1}{4}$ = $\frac{2}{4}$ = $\frac{1}{2}$

8 Find the result of addition: $\frac{1}{3} + \frac{1}{6}$
The bottom numbers (denominators) are different. See how the slices are different sizes?

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

Sometimes, you get fractions like **3/2, 4/3, 5/4,** and **8/6.**

When the **numerator is greater than or equal to the denominator**, then you have an **improper fraction**. **Improper fractions** refer to something that is greater than or equal to 1.

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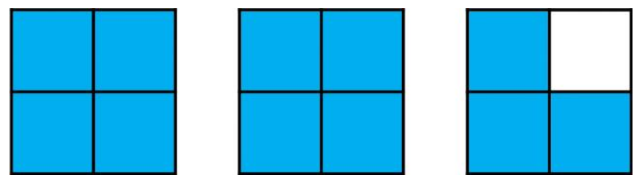
What improper fraction does this model show? How many whole and how many parts of the whole?



Solution: ______________________

____

____

When we combine the **wholes and the fraction part**, you get a **mixed number**!

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Example: There are two different ways to add two mixed numbers: $1\frac{1}{3} + 2\frac{2}{3}$

Solution 1: $1\frac{1}{3} = \frac{1}{1} + \frac{1}{3} = \frac{3}{3} + \frac{1}{3} = \frac{4}{3}$ $\quad 2\frac{2}{3} = \frac{6}{3} + \frac{2}{3} = \frac{8}{3}$ $\quad \frac{4}{3} + \frac{8}{3} = \frac{12}{3} = 4$

Solution 2: $1\frac{1}{3} + 2\frac{2}{3} = (1 + \frac{1}{3}) + (2 + \frac{2}{3}) = (1 + 2) + (\frac{1}{3} + \frac{2}{3}) = 3 + 1 = 4$

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Add and subtract the like fractions (simplify where possible):

2/3 + 1/3 =	2/5 + 3/5 =	3/9 + 4/9 =
1/12 + 5/12 + 6/12=	2/3 – 1/3 =	4/7 – 2/7 =
5/9 – 2/9 =	9/10 – 1/10 – 6/10 =	1 – 1/4 =

12

Solve the problems. Draw diagrams if needed to help yourself:

a) Matt cut a cake into 8 equal slices. He ate three slices.

- What fraction of the cake did he eat? ___________________________

- What fraction of the cake was left? _____________________________

b) Julia planted 12 flowers. After a while 7 flowers started to grow.

- What part of the flowers did start to grow? ___________________

- What part of the flowers did not start to grow? ________________

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Find all the pairs that total to 1 and connect those fractions by line.

$\frac{1}{2}$ $\frac{3}{4}$ $\frac{4}{8}$ $\frac{10}{12}$

$\frac{1}{3}$ $\frac{6}{9}$ $\frac{2}{8}$ $\frac{4}{10}$

$\frac{3}{5}$ $\frac{4}{5}$ $\frac{1}{6}$ $\frac{2}{10}$

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Insert the missing fraction:

a) $\_\_\_\_ + \frac{1}{3} = 1\frac{2}{3}$ b) $\frac{2}{3} + \_\_\_\_ = 2\frac{1}{3}$ c) $\frac{5}{8} + \_\_\_\_ = 3\frac{3}{8}$

d) $\_\_\_\_ + \frac{9}{10} = 8\,\frac{9}{10}$ e) $\_\_\_\_ - \frac{2}{8} = 2\,\frac{3}{8}$ f) $\_\_\_\_ - \frac{4}{5} = 6\,\frac{1}{5}$

g) $3\,\frac{11}{12} - \_\_\_\_ = \frac{5}{12}$ h) $5\,\frac{4}{7} - \_\_\_\_ = \frac{2}{7}$

Did you know …

Did you know that fractions as we use them today didn't exist in Europe until the 17th century? In fact, at first, fractions weren't even thought of as numbers in their own right at all, just a way of comparing whole numbers with each other. Who first used fractions? Were they always written in the same way? How did fractions reach us here? You will learn more about fractions in the next few lessons.

The word fraction actually comes from the Latin "fractio" which means to break.