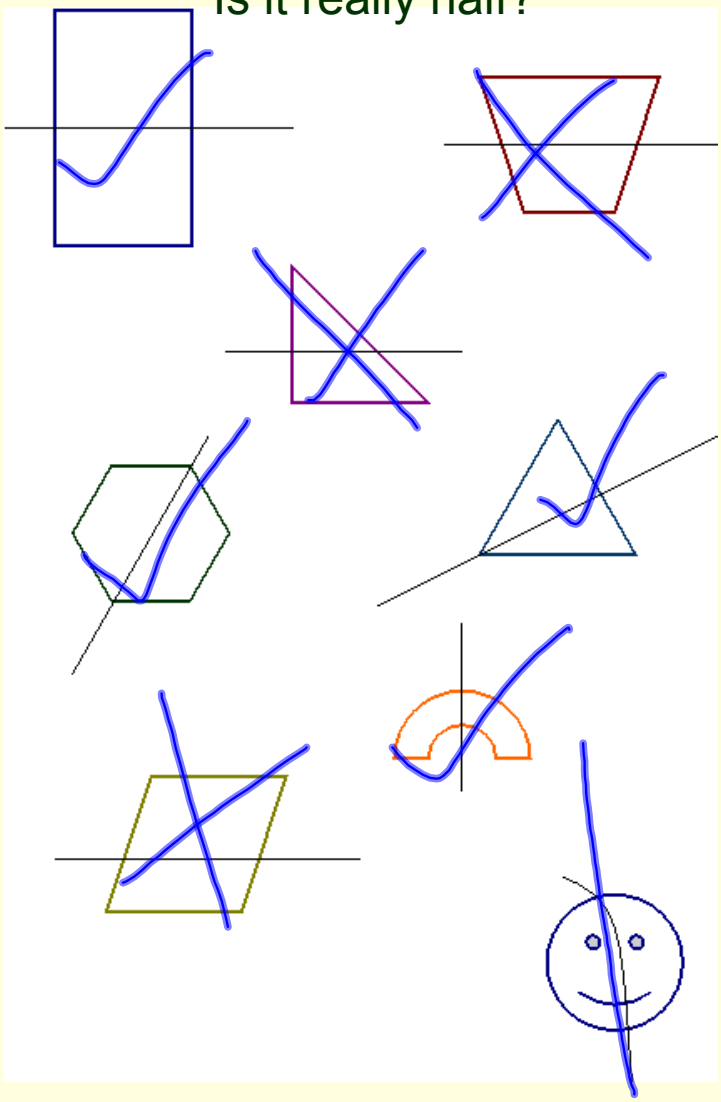
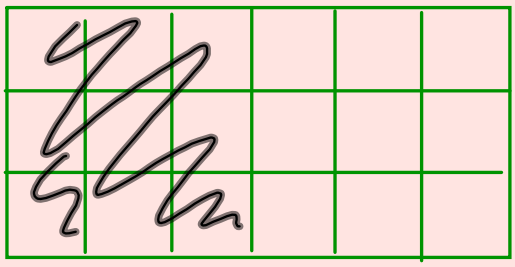
Is it really half?



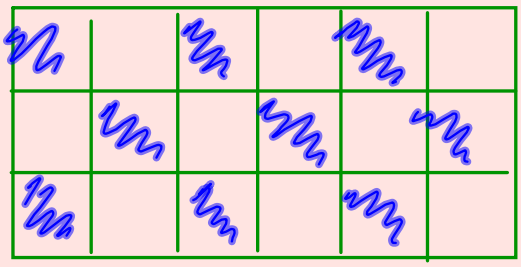
Fractions

Draw 6 rectangles 3cm x 6cm

Shade one half



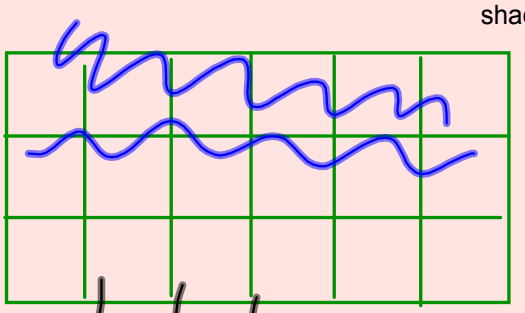
$\frac{1}{2}$

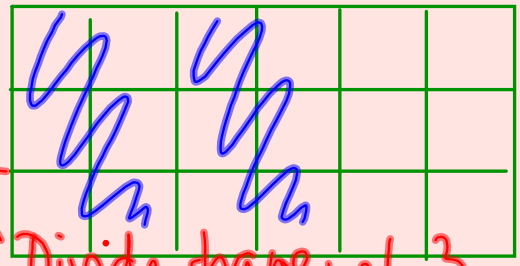


shade two thirds

How many to colour in

$\frac{2}{3}$

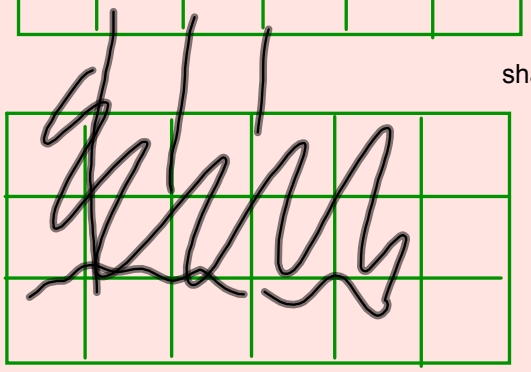


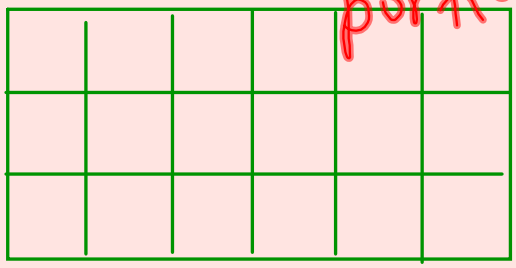


Divide shape into 3 portions

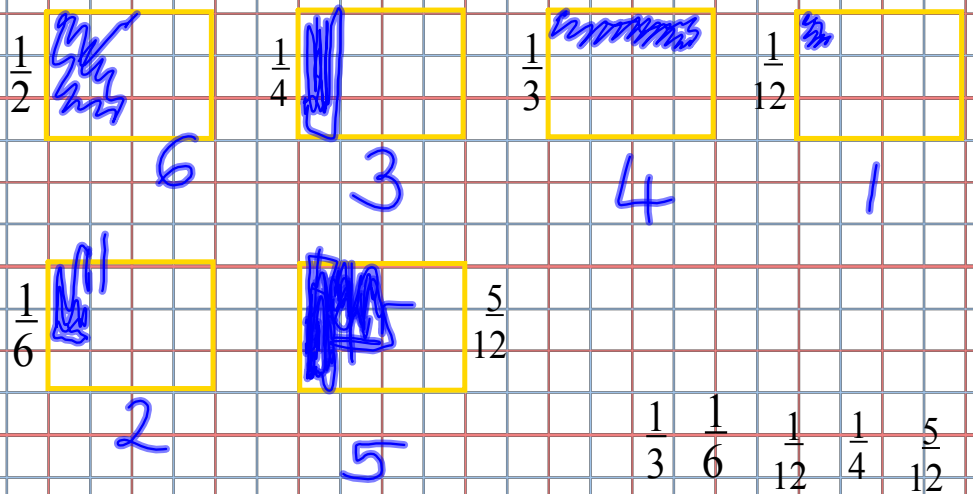
shade five sixths

$\frac{5}{6}$





Draw 6 rectangles 3x4 squares



Put these 6 fractions in order starting with the smallest:

$\frac{1}{3}$ $\frac{1}{6}$ $\frac{1}{12}$ $\frac{1}{4}$ $\frac{5}{12}$ $\frac{1}{2}$

$\frac{1}{12} < \frac{1}{6} < \frac{1}{4} < \frac{1}{3} < \frac{5}{12} < \frac{1}{2}$

Draw 6 rectangles 5x4 squares

$\frac{1}{2}$ $\frac{1}{4}$ $\frac{7}{10}$ $\frac{1}{5}$

$\frac{9}{20}$ $\frac{3}{4}$

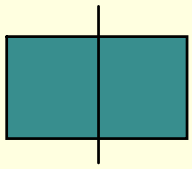
Put these 6 fractions in order starting with the smallest:

$\frac{3}{4}$ $\frac{9}{20}$ $\frac{1}{4}$ $\frac{7}{10}$ $\frac{1}{2}$ $\frac{1}{5}$

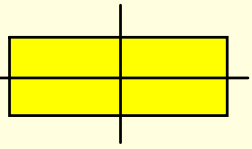
Equivalent Fractions

$\frac{3}{6}$ $\frac{6}{12}$ $\frac{32}{64}$

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



$\frac{2}{8} = \frac{1}{4} = \frac{9}{36}$



$\frac{25}{100}$ $\frac{8}{12}$ $\frac{90}{360}$ $\frac{5}{20}$ $\frac{6}{32}$

$\frac{75}{100} = \frac{3}{4} = \frac{6}{8}$

$\frac{750}{1000}$ $\frac{30}{40}$ $\frac{24}{32}$ $\frac{425}{}$ $\frac{15}{20}$

$\frac{1}{5}$

$\frac{1}{7}$

$\frac{3}{7}$

Equivalent fractions

Copy and complete:

1) $\frac{1}{8} = \frac{2}{16}$

2) $\frac{1}{5} = \frac{3}{15}$

3) $\frac{3}{8} = \frac{6}{16}$

4) $\frac{2}{7} = \frac{4}{14}$

game

Equivalent Fractions Worksheet

$\frac{1}{4} = \frac{\quad}{12}$	$\frac{5}{8} = \frac{\quad}{24}$	$\frac{3}{10} = \frac{\quad}{20}$	$\frac{3}{15} = \frac{\quad}{5}$	$\frac{32}{36} = \frac{\quad}{9}$	$\frac{28}{36} = \frac{\quad}{9}$
$\frac{3}{8} = \frac{\quad}{32}$	$\frac{2}{5} = \frac{\quad}{20}$	$\frac{8}{20} = \frac{\quad}{5}$	$\frac{1}{4} = \frac{\quad}{8}$	$\frac{6}{27} = \frac{\quad}{9}$	$\frac{9}{24} = \frac{\quad}{8}$
$\frac{4}{9} = \frac{\quad}{18}$	$\frac{3}{18} = \frac{\quad}{6}$	$\frac{28}{36} = \frac{\quad}{9}$	$\frac{4}{10} = \frac{\quad}{5}$	$\frac{6}{14} = \frac{\quad}{7}$	$\frac{4}{8} = \frac{\quad}{2}$
$\frac{2}{10} = \frac{\quad}{5}$	$\frac{2}{9} = \frac{\quad}{18}$	$\frac{3}{6} = \frac{\quad}{2}$	$\frac{1}{8} = \frac{\quad}{16}$	$\frac{3}{5} = \frac{\quad}{15}$	$\frac{4}{7} = \frac{\quad}{28}$
$\frac{2}{3} = \frac{\quad}{6}$	$\frac{12}{21} = \frac{\quad}{7}$	$\frac{12}{32} = \frac{\quad}{8}$	$\frac{9}{15} = \frac{\quad}{5}$	$\frac{8}{10} = \frac{\quad}{5}$	$\frac{6}{10} = \frac{\quad}{5}$
$\frac{9}{12} = \frac{\quad}{4}$	$\frac{28}{36} = \frac{\quad}{9}$	$\frac{20}{24} = \frac{\quad}{6}$	$\frac{10}{14} = \frac{\quad}{7}$	$\frac{1}{7} = \frac{\quad}{28}$	$\frac{4}{40} = \frac{\quad}{10}$

Cancelling Fractions

$$\frac{4}{12} = \frac{2}{6} = \frac{1}{3}$$

$$\frac{24}{100} = \frac{12}{50} = \frac{6}{25}$$

Cancel these fractions to their lowest terms

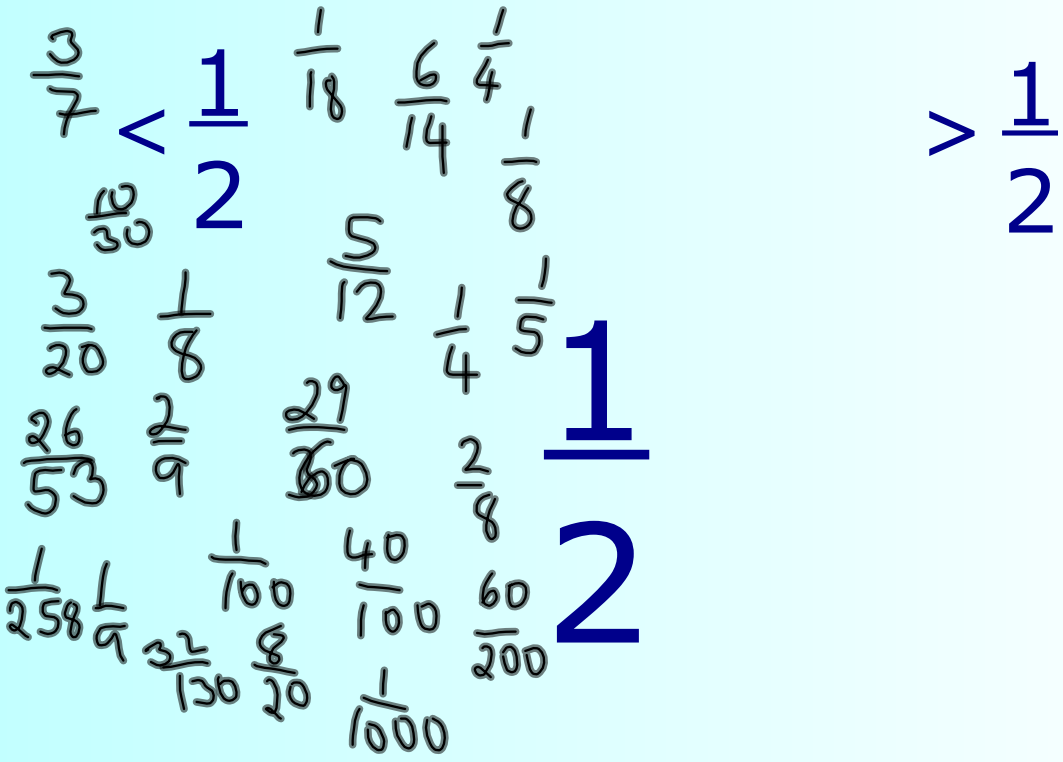
$\frac{20}{45} = \frac{4}{9}$ $\frac{5}{45} = \frac{1}{9}$ $\frac{40}{90} = \frac{4}{9}$

$\frac{8}{48} = \frac{4}{24} = \frac{2}{12} = \frac{1}{6}$

$\frac{27}{42} = \frac{9}{14}$ $\frac{16}{96} = \frac{1}{6}$ $\frac{120}{600} = \frac{12}{60} = \frac{1}{5}$

page 365
ex 24

Thinking about fractions



EXT: They all have the same denominator

Ordering fractions

Copy the fractions onto pieces of card. Stick them in your book in order, starting with the smallest

set 1

$\frac{6}{12}$ $\frac{4}{12}$ $\frac{9}{12}$ $\frac{10}{12}$

$\frac{4}{12}, \frac{5}{12}, \frac{6}{12}, \frac{9}{12}, \frac{10}{12}$

$\frac{1}{2}$ $\frac{5}{12}$ $\frac{1}{3}$ $\frac{3}{4}$ $\frac{5}{6}$

$\frac{1}{3}$ $\frac{5}{12}$ $\frac{1}{2}$ $\frac{3}{4}$ $\frac{5}{6}$

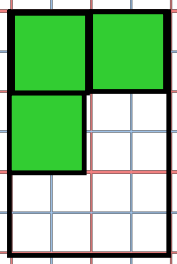
set 2

$\frac{1}{2}$ $\frac{7}{10}$ $\frac{13}{20}$ $\frac{4}{5}$ $\frac{3}{4}$ $\frac{3}{20}$

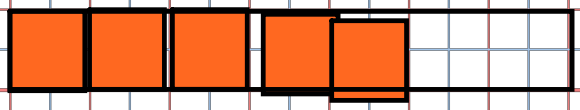
$\frac{3}{20}, \frac{1}{2}, \frac{13}{20}, \frac{7}{10}, \frac{3}{4}, \frac{4}{5},$

Follow me..

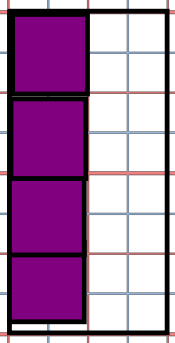
Adding fractions



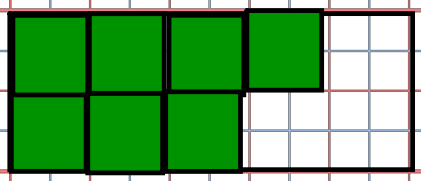
$\frac{2}{6} + \frac{1}{6} = \frac{3}{6}$



$\frac{3}{7} + \frac{2}{7} = \frac{5}{7}$



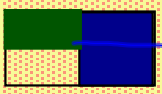
$\frac{3}{8} + \frac{1}{8} = \frac{4}{8}$



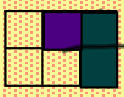
subtracting

page 364 ex 21

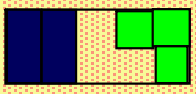
Adding fractions with different denominators.



$\frac{1}{2} + \frac{1}{4} = \frac{2}{4} + \frac{1}{4} = \frac{3}{4}$



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



$\frac{2}{5} + \frac{3}{10} = \frac{4}{10} + \frac{3}{10} = \frac{7}{10}$

$\frac{4}{5} + \frac{1}{10}$ (×2) $= \frac{8}{10} + \frac{1}{10} = \frac{9}{10}$

$\frac{4}{7} + \frac{3}{21} = \frac{12}{21} + \frac{3}{21} = \frac{15}{21}$

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

$\frac{4}{9} - \frac{1}{3}$

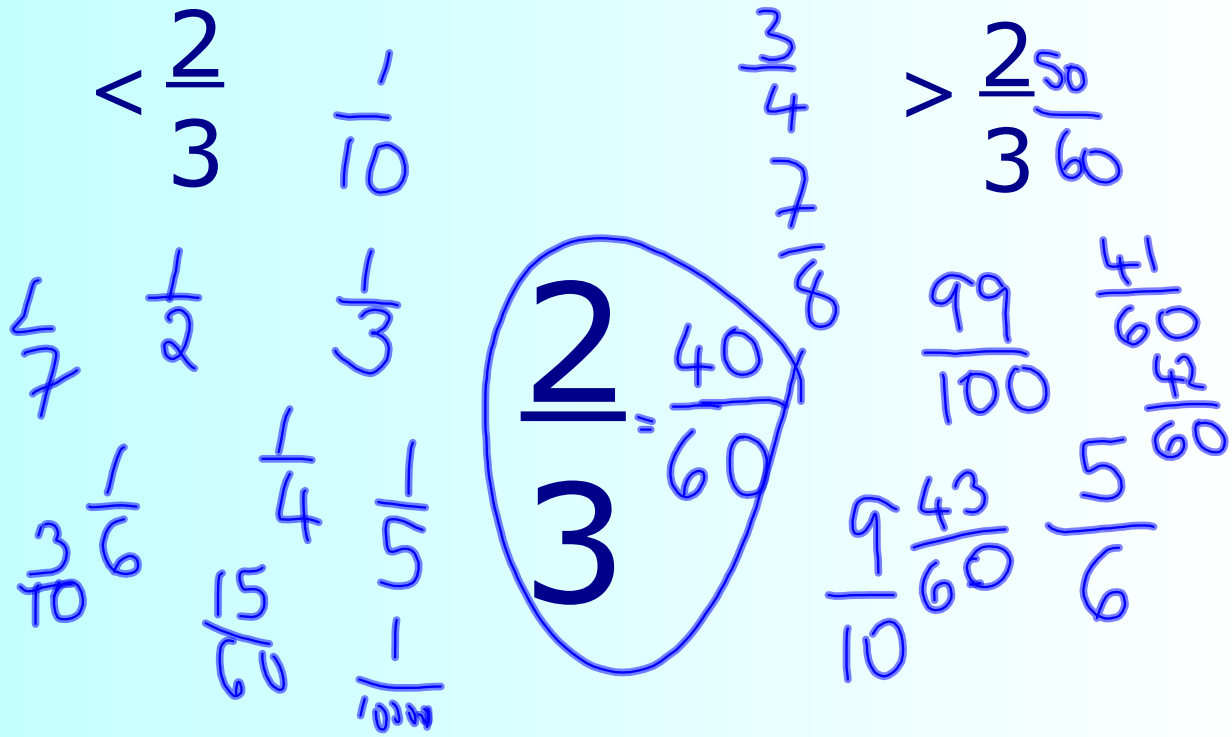
$\frac{1}{2} + \frac{1}{3}$

$\frac{5}{6} - \frac{1}{4}$

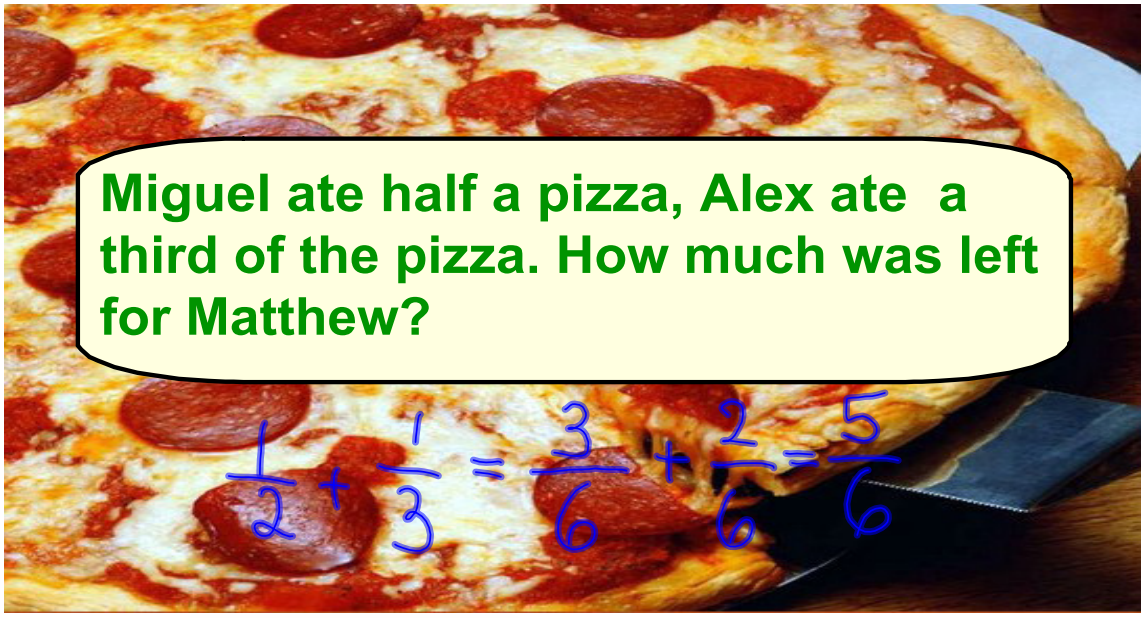
$\frac{2}{3} + \frac{2}{15}$

Worksheet **page 364 ex 22,23**

Thinking about fractions



EXT: They all have the same denominator



Grace, Millie and Sally shared a bar of chocolate.
Grace had 3 tenths, Millie had two fifths how much did Sally have?

$$\frac{3}{10}+\frac{2}{5}=\frac{3}{10}+\frac{4}{10}=\frac{7}{10}$$

Find 3 fractions that total 1

$\frac{1}{3}+\frac{1}{4}+\frac{2}{12}$ $\frac{2}{6}+\frac{3}{6}$

$\frac{2}{5}+\frac{1}{4}+$ $\frac{1}{3}+\frac{1}{3}+\frac{1}{3}$

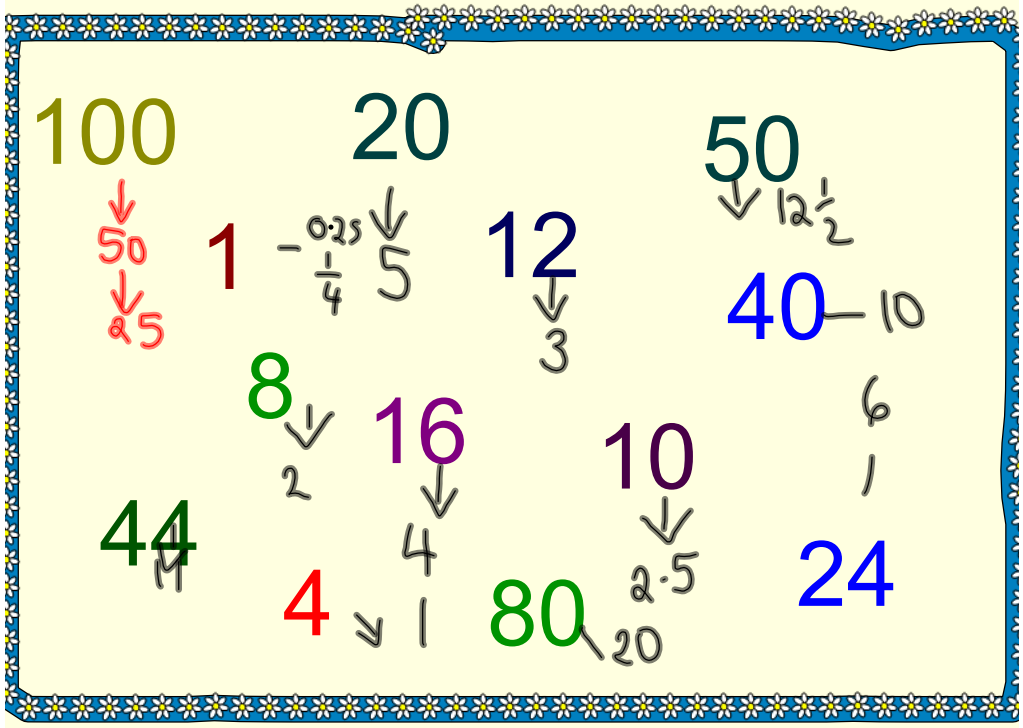
$\frac{7}{10}+\frac{2}{10}+\frac{1}{10}$ $\frac{8}{20}+\frac{5}{20}+\frac{7}{20}$ $\frac{2}{10}$ $\frac{1}{5}+\frac{7}{10}+\frac{1}{10}$

$\frac{1}{3}$ $\frac{1}{4}+\frac{1}{4}+\frac{1}{2}$ $\frac{1}{2}+\frac{1}{4}+\frac{1}{4}$ $\frac{6}{8}+\frac{1}{8}\rightarrow\frac{1}{8}$

Finding a quarter of an amount

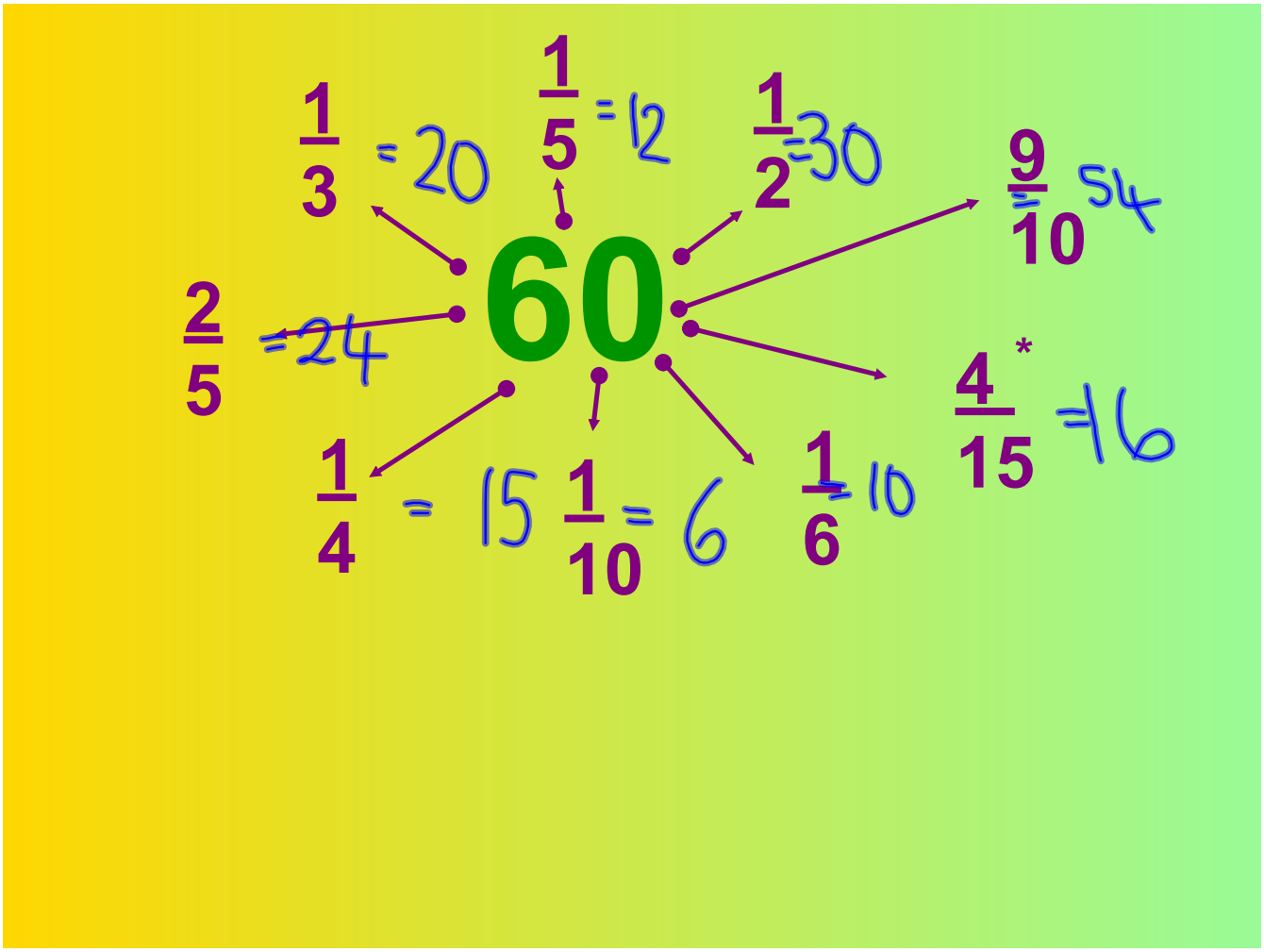
Split it in two and in two again!

Halve it and halve it again

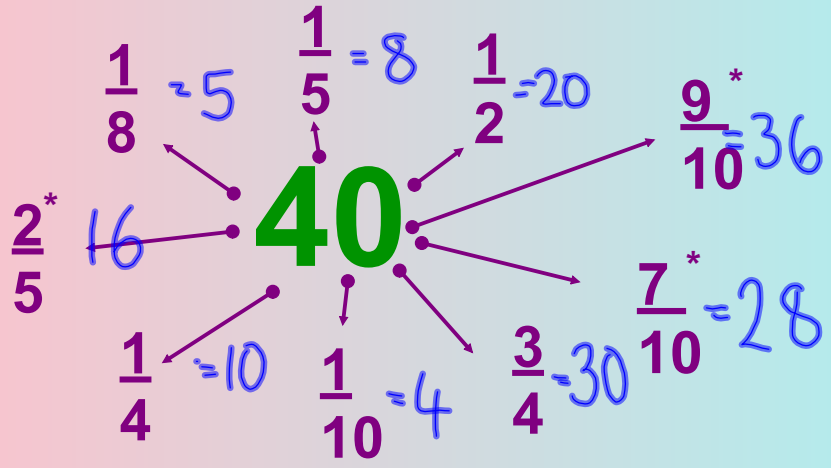


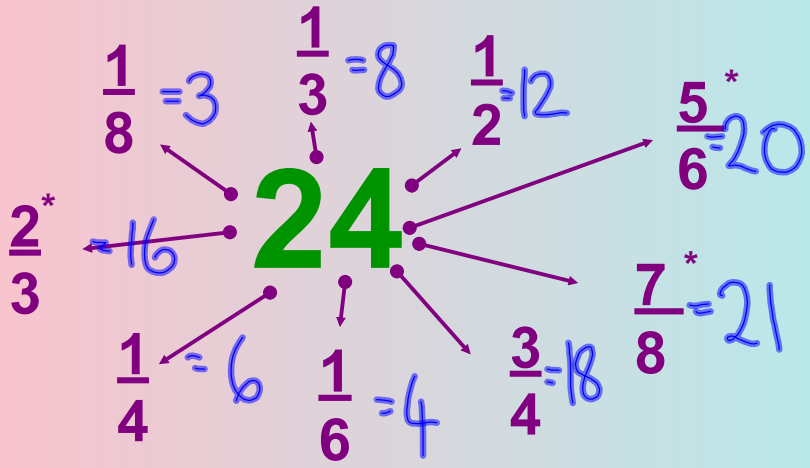
How would you find $\frac{1}{3}$?

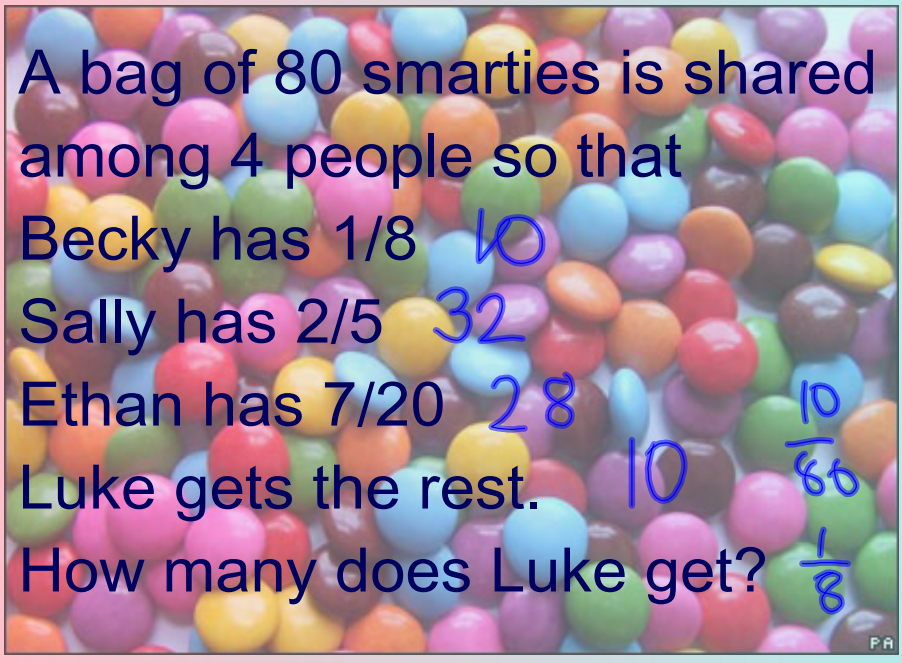
Find $\frac{3}{4}$ of 20


60
1/3 = 20
1/5 = 12
1/2 = 30
9/10 = 54
2/5 = 24
4/15 = 16
1/4 = 15
1/10 = 6
1/6 = 10

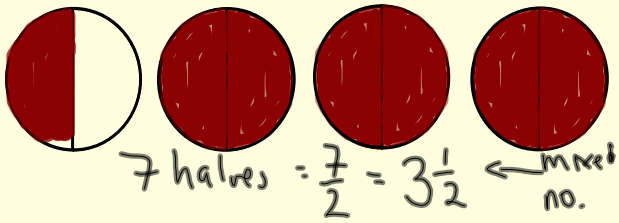
Finding a fraction of an amount





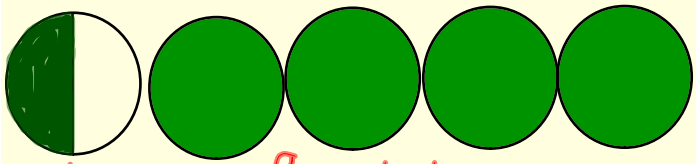


How many halves?

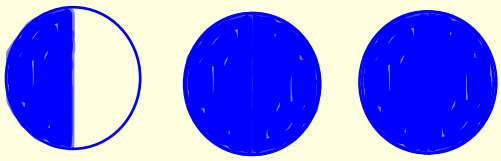


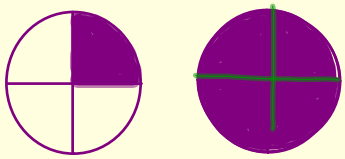
7 halves : $\frac{7}{2} = 3\frac{1}{2}$ ← mixed no.

↑ improper fraction



$\frac{1}{2}$ $\frac{9}{2} = 4\frac{1}{2}$



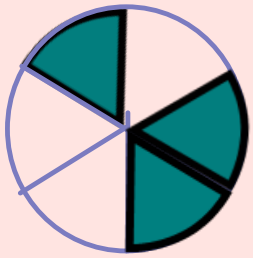


Change these improper fractions to mixed numbers:

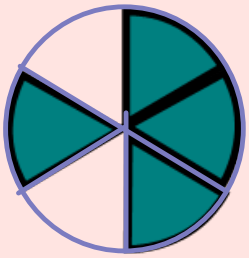
$\frac{7}{2} = 3\frac{1}{2}$ $\frac{5}{4} = 1\frac{1}{4}$ $\frac{8}{2} = 4$

$\frac{11}{2} = 5\frac{1}{2}$ $\frac{11}{4} = 2\frac{3}{4}$ $\frac{9}{4} = 2\frac{1}{4}$

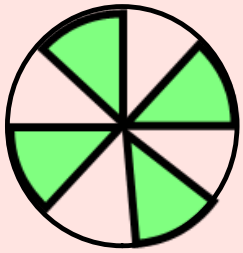
Mixed numbers and improper fractions



$1\frac{3}{6} = 1\frac{1}{2} = \frac{9}{6} = \frac{3}{2}$



$1\frac{2}{6} = \frac{8}{6}$



$\frac{4}{3} = 1\frac{1}{3}$ $\frac{5}{5} = 1$ $\frac{7}{5} = 1\frac{2}{5}$ $\frac{9}{7} = 1\frac{2}{7}$

$\frac{7}{3} = 2\frac{1}{3}$ $\frac{5}{3} = 1\frac{2}{3}$ $\frac{4}{2} = 2$ $\frac{9}{8} = 1\frac{1}{8}$

What's the smallest number you know?

0.001

0.0000000...1

Give a number between:

2 and 10

5 and 10

7 and 10

8 and 10

8 and 8·3

8·2 and 8·3

8·23 + 8·3

8·24 + 8·3

8·25 + 8·3

8·29 + 8·3

8·296 + 8·3

Find a number between

6 and 6.4

7.84 and 7.9

7.12 and 7.15

73.6 and 73.7

12.02 and 12.1

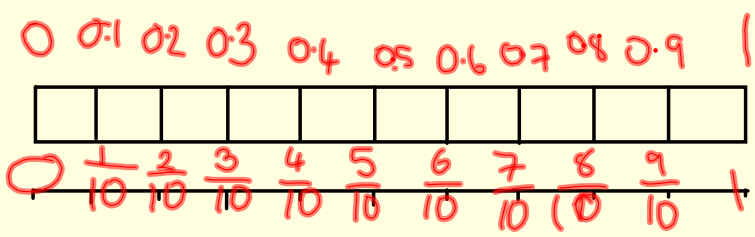
13.93 and 14

9.8 and 9.86

3.49 and 3.5

Decimals

tenths



Put these words in alphabetical order:

ant anna abba antelope and sea

ant
~~abba~~
antelope
~~and~~
anna

Sea

abba, and, anna, ant, antelope

4.9
~~4.099~~
4.5
3.95

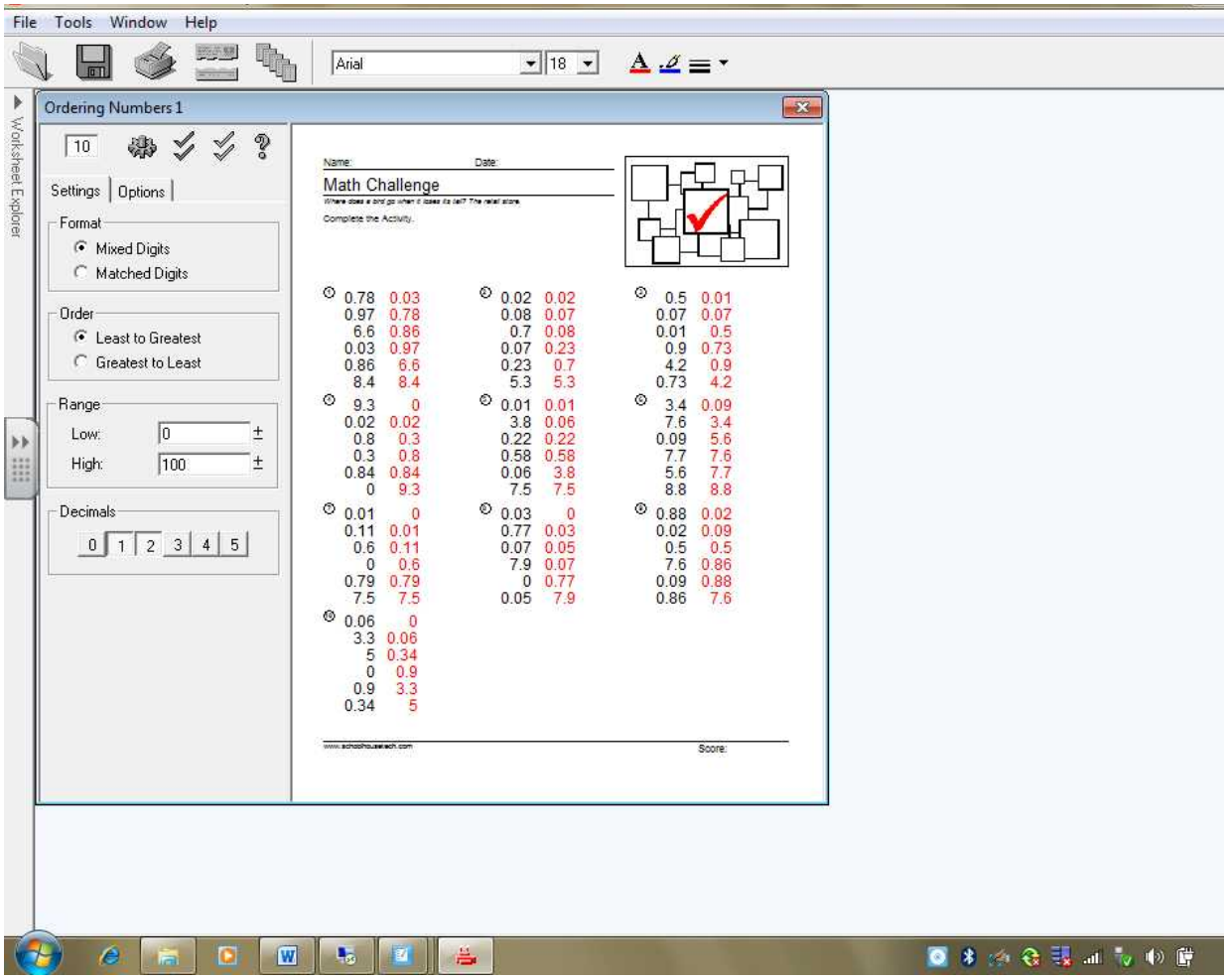
3.95
4.099
4.5
4.9

4.5
~~4.49~~
~~4.099~~
4.909

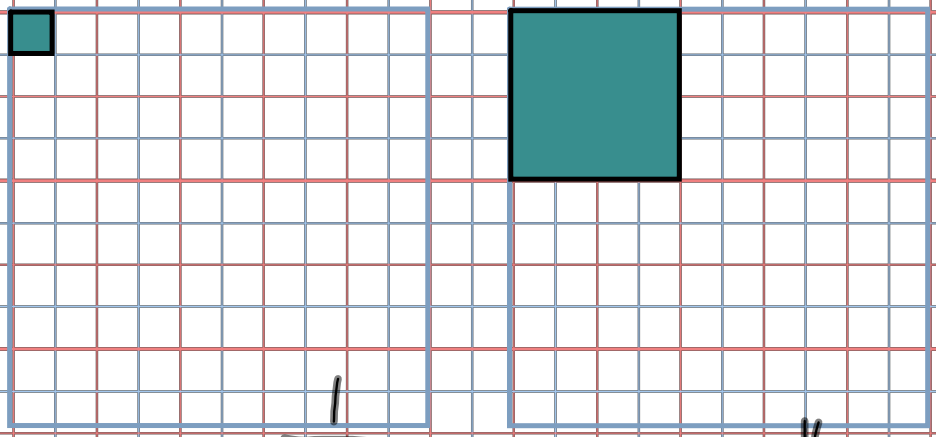
4.099
4.49
4.5
4.909

3.601
~~3.061~~
3.661
3.609

3.061
3.601
3.609
3.661


File Tools Window Help
Arial
18
Ordering Numbers 1
10
Settings
Options
Format
Mixed Digits
Matched Digits
Order
Least to Greatest
Greatest to Least
Range
Low:
0
High:
100
Decimals
0 1 2 3 4 5
Worksheet Explorer
Name:
Date:
Math Challenge
Complete the Activity.
0.78 0.03
0.97 0.78
6.6 0.86
0.03 0.97
0.86 6.6
8.4 8.4
9.3 0
0.02 0.02
0.8 0.3
0.3 0.8
0.84 0.84
0 9.3
0.01 0
0.11 0.01
0.6 0.11
0 0.6
0.79 0.79
7.5 7.5
0.06 0
3.3 0.06
5 0.34
0 0.9
0.9 3.3
0.34 5
0.02 0.02
0.08 0.07
0.7 0.08
0.07 0.23
0.23 0.7
5.3 5.3
0.01 0.01
3.8 0.06
0.22 0.22
0.58 0.58
0.06 3.8
7.5 7.5
0.03 0
0.77 0.03
0.07 0.05
7.9 0.07
0 0.77
0.05 7.9
0.5 0.01
0.07 0.07
0.01 0.5
0.9 0.73
4.2 0.9
0.73 4.2
3.4 0.09
7.6 3.4
0.09 5.6
7.7 7.6
5.6 7.7
8.8 8.8
0.88 0.02
0.02 0.09
0.5 0.5
7.6 0.86
0.09 0.88
0.86 7.6
Score:

Hundredths



Fraction: $\frac{1}{100}$
Decimal: 0.01
Percentage: 1%

Fraction: $\frac{16}{100} = \frac{8}{50} = \frac{4}{25}$
Decimal: 0.16
Percentage: 16%

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main part2 ordering decimals

decimal sequences

Homework for Tuesday

1)Write down 5 pairs of fractions that add up to 1

2) Write down 5 more pairs but they must have different denominators.

3) Write down 5 fractions bigger than 3/4

Starter futoshiki

Match the decimal, percentage and fraction

0.01	1%	$\frac{1}{100}$
0.25	25%	$\frac{1}{4}$
0.1	10%	$\frac{1}{10}$
0.5	50%	$\frac{1}{2}$
0.42	42%	$\frac{21}{50}$

$\frac{25}{100} = \frac{1}{4}$ (÷25)

$\frac{50}{100}$

$\frac{42}{100}$

equiv. cards

Finding a percentage of an amount

Find 50% of

22 → 11 102 → 51

70 → 35

50 → 25 30 → 15

45 → 22½ 20 → 10

Find 25% of

22 → 11 → 5½ 80 → 40 → 20 102 → 51 → 25½

44 → 22 → 11 30 → 15 → 7½

50 → 25 → 12½

20 → 10 → 5

Find 10% of

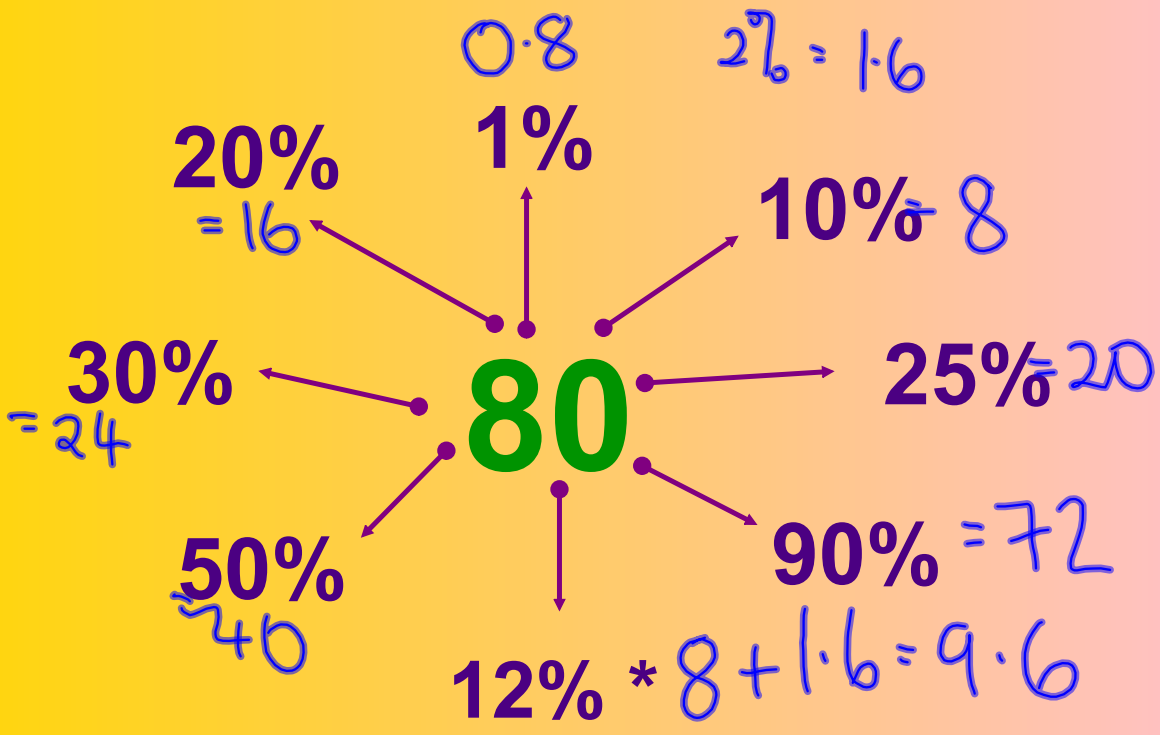
22 → 2·2 102 → 10·2

70 → 7

50 → 5 30 → 3

45 → 4·5 20 → 2

Finding a percentage of an amount.



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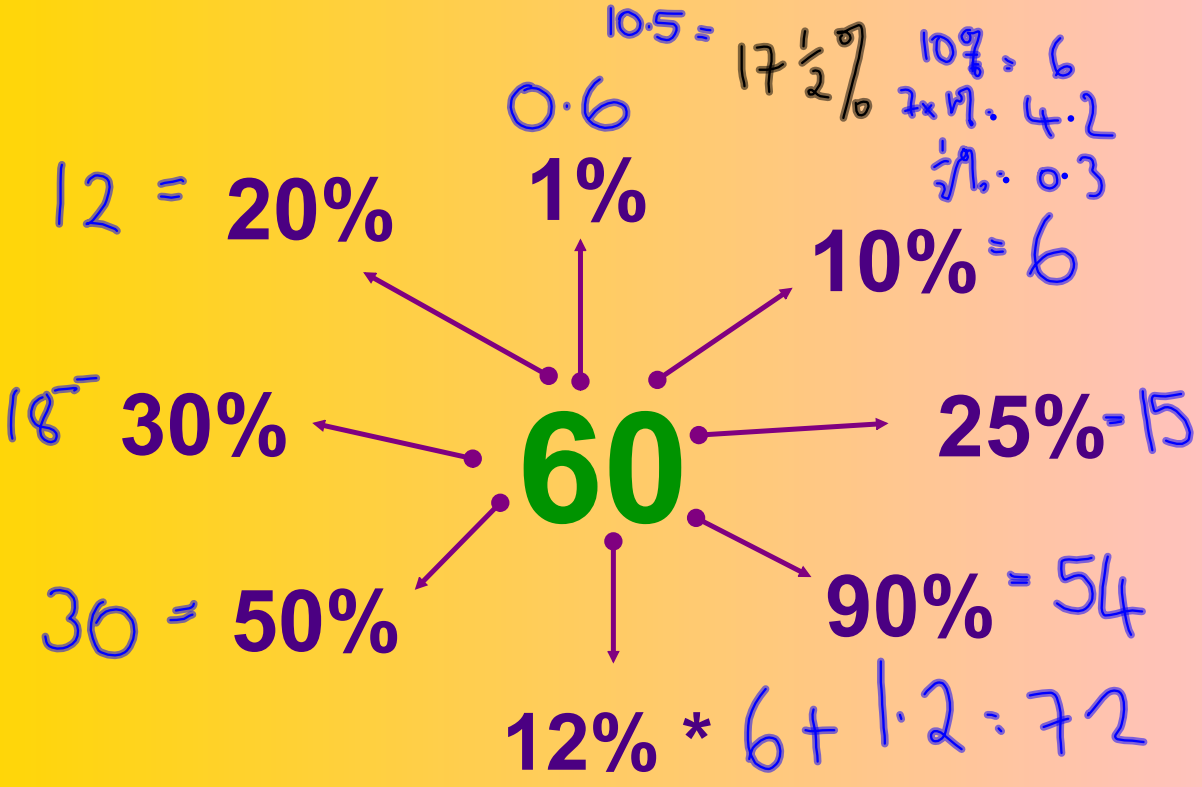
Finding a percentage of an amount.



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Homework for Tuesday

Page 196 qu 1, 8, 9, 10

How to change fractions to decimals ..without going to pieces

1. Without a calculator

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

$2\overline{)1.000} = 0.5$

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

$8\overline{)1.000} = 0.125$

$= 0125$

$= 12.5\%$

$\frac{3}{8} = 3 \div 8$

$8\overline{)3.000} = 0.375$

$= 0.375 = 37.5\%$

try: $\frac{2}{5}$ $\frac{5}{8}$ $\frac{2}{3}$ $\frac{4}{15}$

0.4 0.625 0.6 0.26

40% 62.5% 66.6% 26.6%

2. With a calculator

$\frac{4}{9} = 4 \div 9 = 0.\dot{4}$

$9\overline{)4.00}$

$\frac{7}{8} = 7 \div 8 = 0.875$

Changing Fractions to Percentages

Janet and John both came home with test results.
Janet had 8/10 for Maths and John had 11/15 for English.
Their parents gave John a bag of sweets for getting 11 but made Karen do extra homework for getting only 8.
How fair is that?

Suppose you had 5/10 for a test...

..as a percentage?

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Attachments

Adding & Subtracting Fractions.doc