# Rounding to the nearest 10, 100 or 1000

Discussion

1   There are 754 pupils at Leila's school.
    754 is between 700 and 800.

    a   754 is nearest to which hundred, 700 or 800?

    b   Which digit tells you this?

    c   What is 754, rounded to the nearest hundred?

754

700   800

2   754 is between 750 and 760.

    a   Is it closer to 750 or 760? Explain.

    b   Which digit could you look at to tell you if 754 is closer to 750 or 760? Explain.

    c   What is 754 rounded to the nearest ten?

754

750   760
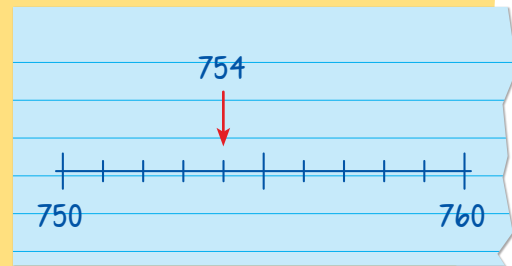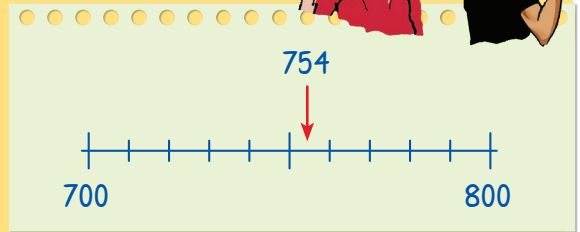
Examples

a   3257 to the nearest 1000 is 3000 because it is closer to 3000 than 4000.

b   865 to the nearest 10 is 870.
    It has been rounded up.

3257

3000   4000
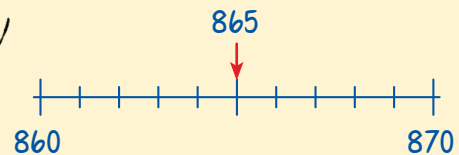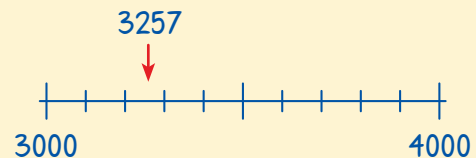
> When a number is **half way** between two tens, two hundreds or two thousands numbers, it is **rounded up**.

865

860   870

Activity

> If the number is **half way** between then we **round up**.
> **Example** 125 to the nearest ten is 130.

Use number lines to help.

1   Round these numbers to the nearest 10.

    a 346   **b** 786   **c** 845   **d** 1027   **e** 2355

2   Round these numbers to the nearest 100.

    a 458   **b** 873   **c** 2562   **d** 3450   **e** 4729

3   Round these numbers to the nearest 1000.

    a 3468   **b** 4561   **c** 8500   **d** 9756   **e** 11654

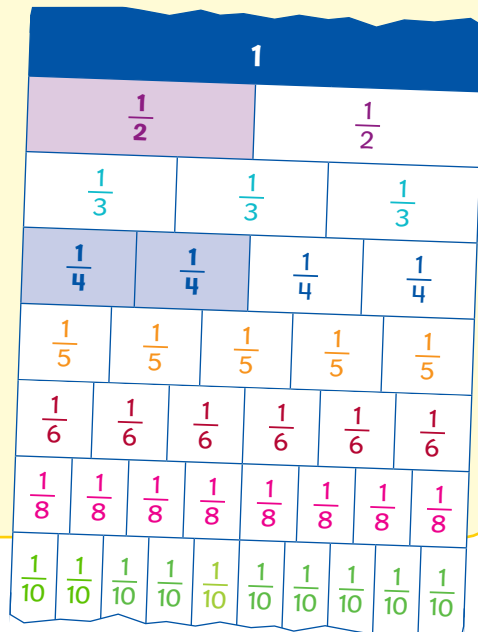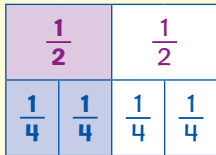SUPPLEMENTARY STUDENT MATERIAL – **YEAR 4**

Equivalent fractions

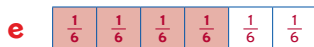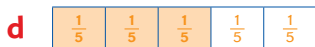A fraction wall can be used to find **equivalent fractions**.

On the wall two $\frac{1}{4}$s $\left(\frac{2}{4}\right)$ is the same size as $\frac{1}{2}$.

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

Activity

1 Use the fraction wall to find a fraction that is the same size as the shaded part.

a $\boxed{\frac{1}{8}\ \frac{1}{8}\ \frac{1}{8}\ \frac{1}{8}}\ \frac{1}{8}\ \frac{1}{8}\ \frac{1}{8}\ \frac{1}{8}$

b $\boxed{\frac{1}{10}\ \frac{1}{10}\ \frac{1}{10}\ \frac{1}{10}}\ \frac{1}{10}\ \frac{1}{10}\ \frac{1}{10}\ \frac{1}{10}\ \frac{1}{10}\ \frac{1}{10}$

c $\boxed{\frac{1}{3}\quad \frac{1}{3}}\quad \frac{1}{3}$

d $\boxed{\frac{1}{5}\ \frac{1}{5}\ \frac{1}{5}}\ \frac{1}{5}\ \frac{1}{5}$

e $\boxed{\frac{1}{6}\ \frac{1}{6}\ \frac{1}{6}\ \frac{1}{6}}\ \frac{1}{6}\ \frac{1}{6}$

Use the fraction wall to answer questions 2 to 7

2 Which fraction is the same size as these?

    a four $\frac{1}{8}$s $\left(\frac{4}{8}\right)$ **b** five $\frac{1}{10}$s $\left(\frac{5}{10}\right)$ **c** three $\frac{1}{6}$s $\left(\frac{3}{6}\right)$

    d four $\frac{1}{10}$s $\left(\frac{4}{10}\right)$ **e** two $\frac{1}{6}$s $\left(\frac{2}{6}\right)$ **f** six $\frac{1}{10}$s $\left(\frac{6}{10}\right)$

3 What can you say about the size of these?

    a $\frac{1}{4}$s and $\frac{1}{2}$s   **b** $\frac{1}{5}$s and $\frac{1}{10}$s   **c** $\frac{1}{4}$s and $\frac{1}{8}$s
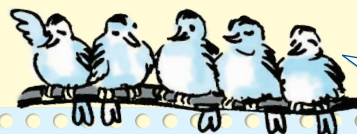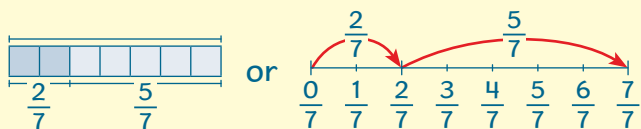
    d $\frac{1}{3}$s and $\frac{1}{6}$s   **e** $\frac{1}{8}$s and $\frac{1}{2}$s   **f** 1 and $\frac{1}{2}$s

Adding and subtracting fractions

Fractions can be **added or subtracted** using fraction tiles or number lines.
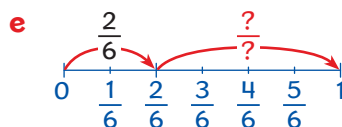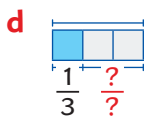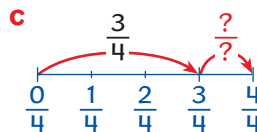
Example

or

$$\frac{2}{7} + \frac{5}{7} = \frac{7}{7} = 1 \text{ whole}$$

This is a fraction equation.

Activity

1 Write a fraction equation for each of these.

a
$$\frac{4}{8} + \frac{?}{?} = \underline{}$$
$$= 1$$

b
$$\frac{2}{5} + \frac{?}{?} = \underline{}$$
$$= \underline{}$$

c

d
$$\frac{1}{3} \quad \frac{?}{?}$$

e
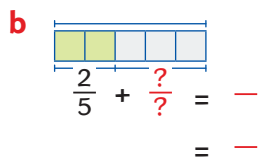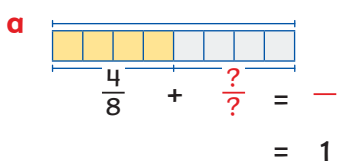
2 Write a fraction equation for each of these.

a

b

c

d

e

f
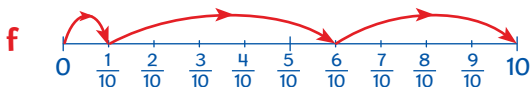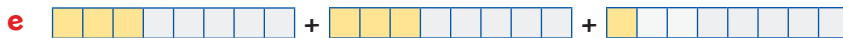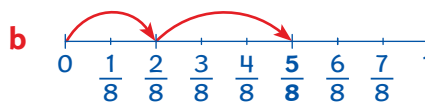
3 Find the answers to these.

a $\dfrac{1}{3} + \dfrac{2}{3}$

b $\dfrac{3}{5} + \dfrac{2}{5}$

c $\dfrac{4}{7} + \dfrac{3}{7}$

d $\dfrac{7}{10} + \dfrac{1}{10} + \dfrac{2}{10}$

e $\dfrac{1}{8} + \dfrac{3}{8} + \dfrac{4}{8}$

f $\dfrac{3}{8} + \dfrac{2}{8} + \dfrac{3}{8}$

g $\dfrac{5}{10} + \dfrac{3}{10} + \dfrac{2}{10}$

h $\dfrac{1}{10} + \dfrac{1}{10} + \dfrac{6}{10} + \dfrac{2}{10}$

i $\dfrac{2}{9} + \dfrac{3}{9} + \dfrac{3}{9} + \dfrac{1}{9}$

Giving change

Example

Bonnie had a $10 note.
She bought a card for her mum for $6.
How much change did she get?

She would get
two $2 coins or
$4 change.

$2 $2

$6 $7 $8 $9 $10

Practical

Change

You pay for these with a $10 note. Show how much change you will get? What notes and coins change could be given? Is there more than one way?

- You will need play money

a   1 L Milk   **b**   Pen   **c**   Strawberry jam   **d**   Chocolate

$3 $2 $5 $7

Activity

1   Jimmy paid for these with a $5 note. How much change would he get?

   a   Deck of cards   **b**   Lollipop   **c**   Packet of chips   **d**   Beach ball

     $3 $1 $2 $4

2   Arelia paid for these with a $20 note. How much change would she get?

   a   Necklace   **b**   Cake   **c**   Dress   **d**   Costume

     $4 $12 $18 $13

3   How much change would you get if you paid for each of these with a $50 note?

Best Burgers

a	Fish burger	**$16**
b	Burger and chips	**$25**
c	Steak and chips	**$36**
d	Family pack	**$46**

ANSWERS

NC4–1 *Counting in 50s and 25s* ....

Activity
1. a 200, 175, 150, 125, 100, 75, 50, 25, 0.
   b 500, 450, 400, 350, 300, 250, 200, 150, 100, 50.
   c 400, 425, 450, 475, 500, 525, 550, 575, 600, 625, 650, 675, 700.
   d 700, 650, 600, 550, 500, 450, 400, 350.
   e 800, 775, 750, 725, 700, 675, 650, 625, 600, 575, 550, 525, 500, 475, 450.
   f 1000, 975, 950, 925, 900, 875, 850, 825, 800, 775, 750, 725, 700.
2. a 550 b 325 c 525 d 650
3. a 100, 50, 0.
   b 100, 75, 50, 25, 0.
   c 300, 275, 250, 225, 200, 175, 150, 125, 100, 75, 50, 25, 0.
   d 200, 150, 100, 50, 0.

NC4–2 *Rounding to the nearest 10, 100 or 1000* ....

Discussion
1. a 800
   b The tens digit
   c 800
2. a Closer to 750. It is 4 from 750, but 6 from 760.
   b The ones place. If you look at the next digit after the one you want to round to, it will tell you if the number is closer to the next ten. If the number is 5 or more, then you round up.
   c 750

Activity
1. a 350 b 790 c 850 d 1030 e 2360
2. a 500 b 900 c 2600 d 3500 e 4700
3. a 3000 b 5000 c 9000 d 10 000 e 12 000

NC4–3 *Rounding to the nearest 10, 100 or 1000 cont.* ....

4. a ones b tens c hundreds
5. a 90 b 90 c 270 d 480
   e $510 f $1230 g $470 h 110
   i 1650 j 310 k 1280 l $4330
6. a 100 b 100 c 300 d 500
   e $500 f $1200 g $500 h 100
   i 1700 j 300 k 1300 l $4300
7. 20 km
8. a 60 m b 100 m
9. a 290 b 300
10. a 480 b 500
11. a 580 m and 160 m b 600 m and 200 m

NC4–5 *Estimating answers* ....

Activity
1. a B160 b C580 c A350 d C80 e B10
2. a 30 b 240 c 480 d 300 e 180
   f 10 g 9 h 640
3. a 150 b 40 c 50 d 10 m

NC4–6 *Using benchmarks to estimate* ....

Activity
1. a half b double c a bit more d a bit less
2. a 100 cm b 20 km c 240 d 90

NC4–7 *Checking answers using inverse operations* ....

Activity
1. a $24 \div \mathbf{4} = 6$ b $4 \times 25 = \mathbf{100}$ c $7 \times \mathbf{8} = 56$

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d $6 \times 4 = \mathbf{24}$ e $56 \div \mathbf{7} = 8$ f $\mathbf{100} \div 4 = 25$
g $\mathbf{24} \div 4 = 6$ h $\mathbf{25} \times 4 = 100$ i $100 \div \mathbf{25} = 4$
j $8 \times 7 = \mathbf{56}$ k $\mathbf{56} \div 8 = 7$ l $4 \times \mathbf{6} = 24$

A family of facts has 4 equations, so these 12 equations make up 3 families of facts:
$6 \times 4 = 24, 4 \times 6 = 24, 24 \div 4 = 6, 24 \div 6 = 4.$
$4 \times 25 = 100, 25 \times 4 = 100, 100 \div 4 = 25, 100 \div 25 = 4.$
$7 \times 8 = 56, 8 \times 7 = 56, 56 \div 7 = 8, 56 \div 8 = 7.$
2. a 18 spoonfuls b 4 g c 3 d 300 kg e 40 L

NC4–8 *Adding and subtracting using a vertical method* ....

Discussion
Mae's answer is wrong because she put 33 in the wrong place value columns. She could have also estimated the answer was about 200.

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   1 6 4
+    3 3
  ─────
   1 9 7
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It is correct because the numbers are lined up in columns according to their place values.

Activity
1. a 39 b 33 c 79 d 209 e 112
   f 399 g 516 h 412 i 799 j 823
   k 904 l 509 m 699 n 910 o 810
2. a 99 b 35 c 111 d 399 e 524
   f 395 g 521 h 323 i 389 j 569
   k 810 l 710
3. a 398 cm b 197 cm c 821 m d 653 g

NC4–9 *Multiplication and division basic facts* ....

Activity
1. Set 1 a 10 b 3 c 16 d 10
          e 10 f 7 g 18 h 40
          i 8 j 10 k 45 l 35
          m 6 n 9 o 30
   Set 2 a 15 b 7 c 24 d 2
          e 3 f 4 g 27 h 48
          i 5 j 4 k 27 l 54
          m 8 n 6 o 24
   Set 3 a 28 b 2 c 21 d 3
          e 4 f 6 g 45 h 72
          i 5 j 5 k 42 l 63
          m 7 n 8 o 9
   Set 4 a 16 b 3 c 32 d 4
          e 7 f 5 g 56 h 40
          i 9 j 9 k 48 l 24
          m 7 n 8 o 9
2. 9 as $3 \times 3 = 9$ 16 as $4 \times 4 = 16$
   25 as $5 \times 5 = 25$ 36 as $6 \times 6 = 36$
   49 as $7 \times 7 = 49$ 64 as $8 \times 8 = 64$
   81 as $9 \times 9 = 81$ 100 as $10 \times 10 = 100$

NC4–10 *Multiplication and division basic facts cont.* ....

Puzzles
1. A human eyeball weighs about 28 grams.
2. Human eyes stay the same size from birth.

NC4–15 *Multiplication and division basic facts cont.* ....

Activity
1. a $5 \times 9 = \mathbf{45}$ $4 \times \mathbf{6} = 24$ $7 \times \mathbf{8} = 56$
     $9 \times \mathbf{5} = 45$ $\mathbf{6} \times 4 = 24$ $8 \times 7 = \mathbf{56}$
     $45 \div \mathbf{5} = 9$ $24 \div \mathbf{4} = 6$ $56 \div \mathbf{7} = 8$