NUMBER PATTERNS
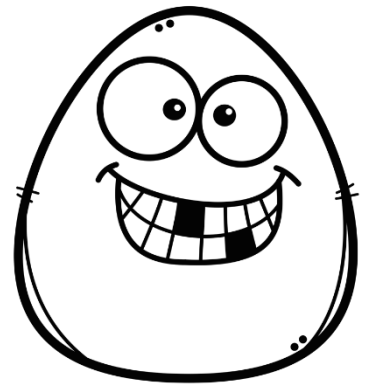
Count forward

1. Count forward in 2's.
    a. 122, 124, 126, 128, 130, 132, 134, 136.
    b. 48, 50, 52, 54, 56, 58, 60, 62.
   c. 500, 502, 504, 506, 508, 510, 512, 514.

2. Count forward in 5's.
    a. 50, 55, 60, 65, 70, 75, 80, 85, 90.
    b. 400, 405, 410, 415, 420, 425, 430, 435.

3. Count forward in 100.
    a. 200, 300, 400, 500, 600, 700, 800, 900.
    b. 110, 210, 310, 410, 510, 610, 710, 810, 910.
    c. 50, 100, 150, 250, 350, 450, 550, 650, 750.

4. Count forward in 500.
    a. 500, 1000, 1500, 2000, 2500, 3000, 3500.
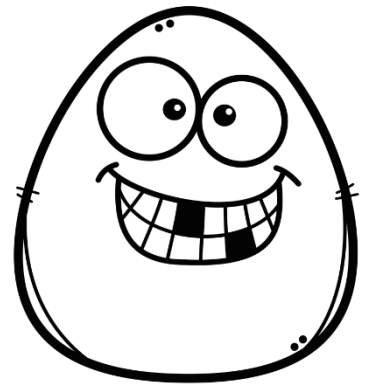   b. 1000, 1500, 2000, 2500, 3000, 3500, 4000.

Complete the pattern:

1. 400, 800, 1200, 1600, 2000, 2400, 2800.
2. 5500, 5400, 5300, 5200, 5100, 5000, 4900.
3. 600, 900, 1200, 1500, 1800, 2100, 2400, 2700.
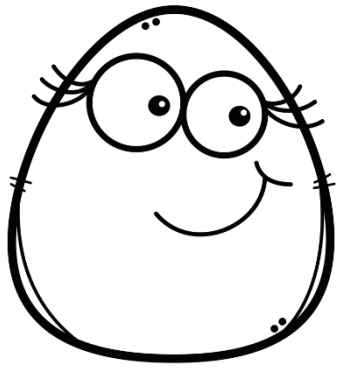
NUMBER PATTERNS

Count backward

1. Count backward in 2's.
   a. 122, 120, 118, 116, 114, 112, 110, 108.
   b. 48, 46, 44, 42, 40, 38, 36, 34.
   c. 500, 498, 496, 494, 492, 490.

2. Count backward in 5's.
   a. 50, 45, 40, 35, 30, 25, 20, 15, 10.
   b. 400, 395, 390, 385, 380, 375, 370, 365.

3. Count backward in 100.
   d. 900, 800, 600, 500, 400, 300, 200, 100.
   e. 8910, 8810, 8710, 8610, 8510, 8410, 8310, 8210, 8110.
   f. 720, 620, 520, 420, 320, 220, 120.

4. Count backward in 500.
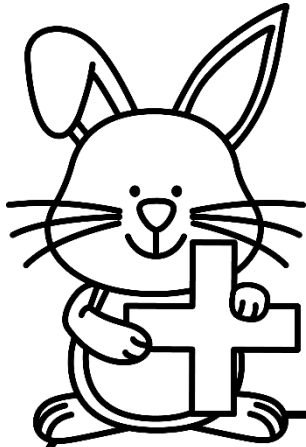   c. 2500, 2000, 1500, 1000, 500.
   d. 9000, 8500, 8000, 7500, 7000, 6500.

Complete the pattern:

1. 9000, 8000, 7000, 6000, 5000, 4000, 3000.
2. 7 700, 7 600, 7 500, 7400, 7300, 7200, 7100.
3. 1550, 1500, 1450, 1400, 1350, 1300, 1250, 1200.

Fun with ADDITION

Breaking down method - Break down both numbers

Calculate 5 362 + 2 486

= 5 000 + 300 + 60 + 2 + 2 000 + 400 + 80 + 6
= 5 000 + 2 000 + 300 + 400 + 60 + 80 + 2 + 6
= 7 000 + 700 + 140 + 8
= 7 848

Calculate the sums by using the breaking down method.

5362 + 246

= 5000 + 300 + 60 + 2 + 200 + 40 + 6

= 5000 + 300 + 200 + 60 + 40 + 2 + 6

= 5000 + 500 + 100 + 8

= 5000 + 600 + 8

= 5608

4365 + 1552
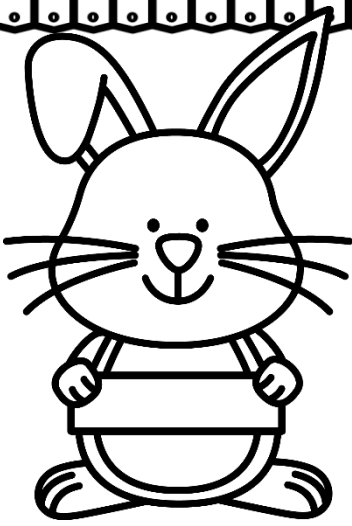
= 4000 + 300 + 60 + 5 + 1000 + 500 + 50 + 2

= 4000 + 1000 + 300 + 500 + 60 + 50 + 5 + 2

= 5000 + 800 + 110 + 7

= 5000 + 910 + 7

= 5917

2 194 + 3 642

= 2000 + 100 + 90 + 4 + 3000 + 600 + 40 + 2

= 2000 + 3000 + 100 + 600 + 90 + 40 + 4 + 2

= 5000 + 700 + 130 + 6

= 5000 + 830 + 6

= 5836

1 671 + 327 =

= 1000 + 600 + 70 + 1 + 300 + 20 + 7

= 1000 + 600 + 300 + 70 + 20 + 1 + 7

= 1000 + 900 + 90 + 8

= 1998

Fun with SUBTRACTION

Breaking down method – Break down both numbers

Calculate 8 342 - 2 131

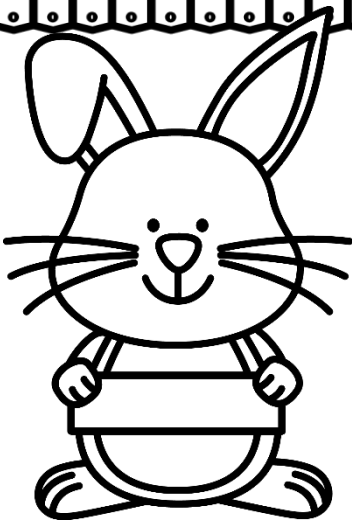= (8 000 - 2 000) + (300 - 100) + (40 - 30) + (2 - 1)
= 6 000 + 200 + 10 + 1
= 6 211

Calculate the sums by using the breaking down method.

7 182 - 61 =

= (7000) + (100) + (80-60) + (2-1)

= 7000 + 100 + 20 + 1

= 7121

8 764 - 3 451 =

= (8000-3000) + (700-400) + (60-50) + (4-1)

= 5000 + 300 + 10 + 3

= 5313

4 997 - 895 =

= (4000) + (900-800) + (90-90) + (7-5)

= 4 000 + 100 + 0 + 2

= 4102

8 759 - 4 733 =

= (8000-4000) + (700-700) + (50-30) + (9-3)

= 4 000 + 0 + 20 + 6

= 4026

Fun with MULTIPLY

Example 1

53 x 5 =
= (50 + 3) x 5
= (50 x 5) + (3 x 5)
= 250 + 15
= 265

Example 2

```
      5   3
x         5
      1   5    (3x5)
  2   5   0    (50 x 5)
  2   6   5
```

Calculate the sums by using the methods used in example 1 and 2

52 x 9 =

Example 1

52 x 9 =
= (50 + 2) x 9
= (50 x 9) + (2 x 9)
= 450 + 18
= 468

Example 2

```
      5   2
x         9
      1   8    (2x9)
  4   5   0    (50 x 9)
  4   6   8
```

23 x 21

Example 1

23 x 21 =
= (20 + 3) x (20 + 1)
= (20 x 20) + (3 x 20) + (20 x1) + (3 x 1)
= 400 + 60 + 20 + 3
= 483

Example 2

```
        2   3
x       2   1
            3   (3 x 1)
        2   0   (20 x 1)
        6   0   (20 x 3)
    4   0   0   (20 x 20)
    4   8   3
```

Fun with DIVISION

Example 1

$375 \div 5$

$= (300 + 70 + 5) \div 5$

$= (300 \div 5) + (70 \div 5) + (5 \div 5)$

$= 60 + 14 + 1$

$= 75$

Example 2

$42 \div 2$

$= (40 + 2) \div 2$

$= (40 \div 2) + (2 \div 2)$

$= 20 + 1$

$= 21$

Calculate the sums by using the methods used in example 1 and 2

$64 \div 2 =$

$64 \div 2$

$= (60 + 4) \div 2$

$= (60 \div 2) + (4 \div 2)$

$= 30 + 2$

$= 32$

$48 \div 4 =$

$48 \div 4$

$= (40 + 8) \div 4$

$= (40 \div 4) + (8 \div 4)$

$= 10 + 2$

$= 12$

$448 \div 4 =$

$448 \div 4$

$= (400 + 40 + 8) \div 4$

$= (400 \div 4) + (40 \div 4) + (8 \div 4)$

$= 100 + 10 + 2$

$= 112$

$369 \div 3 =$

$369 \div 3$

$= (300 + 60 + 9) \div 3$

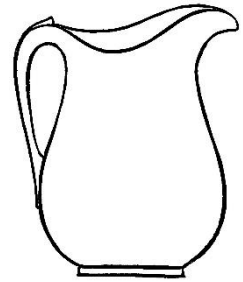$= (300 \div 3) + (60 \div 3) + (9 \div 3)$

$= 100 + 20 + 3$

$= 123$

VOLUME
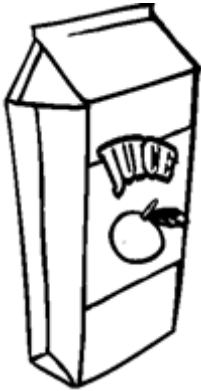
An orange juice carton holds 1 liter

This cup holds 250 ml.

This jug holds 500 ml.

a. A cup holds **less than** the orange juice carton, more than, less than, the same as.

b. The orange juice carton holds **more than** the cup, more than, less than, the same as.

c. The jug holds **less than** the orange juice carton, more than, less than, the same as.

d. The jug holds **more than** the cup, more than, less than, the same as.

e. The orange juice **more than** carton holds the jug, more than, less than, the same as
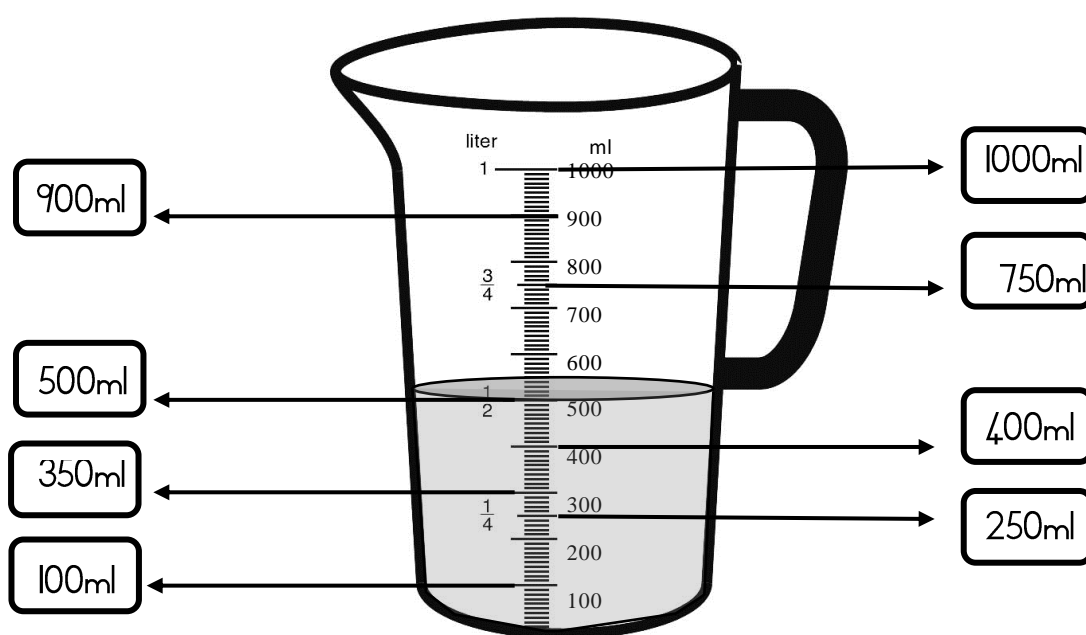
Capacity and Volume

What is the capacity of each measuring jug in ml? Write the answer in the blocks.

Jug
A

liter	ml
1	1000
	900
3/4	800
	700
	600
1/2	500
	400
1/4	300
	200
	100

500ml

Jug
B

liter	ml
1	1000
	900
3/4	800
	700
	600
1/2	500
	400
1/4	300
	200
	100

400ml

Jug
C

liter	ml
1	1000
	900
3/4	800
	700
	600
1/2	500
	400
1/4	300
	200
	100

1000ml

Jug
D

liter	ml
1	1000
	900
3/4	800
	700
	600
1/2	500
	400
1/4	300
	200
	100
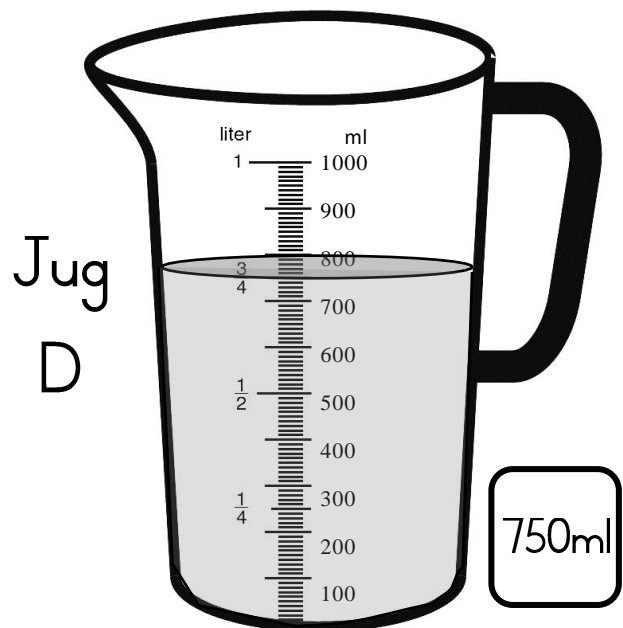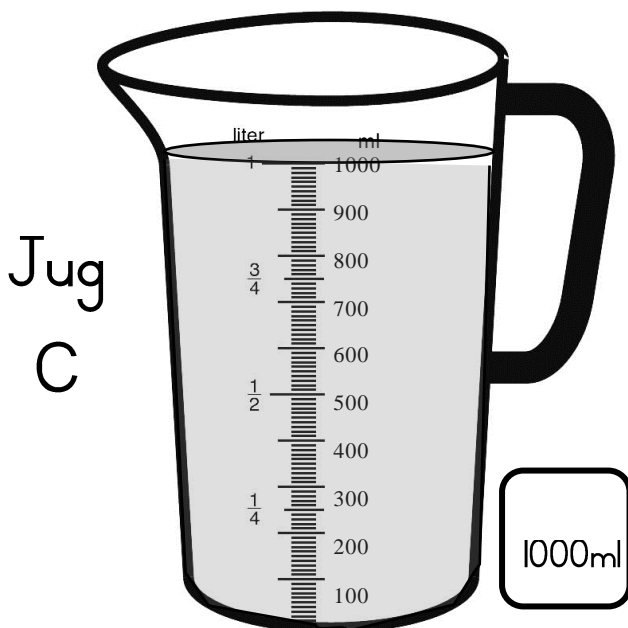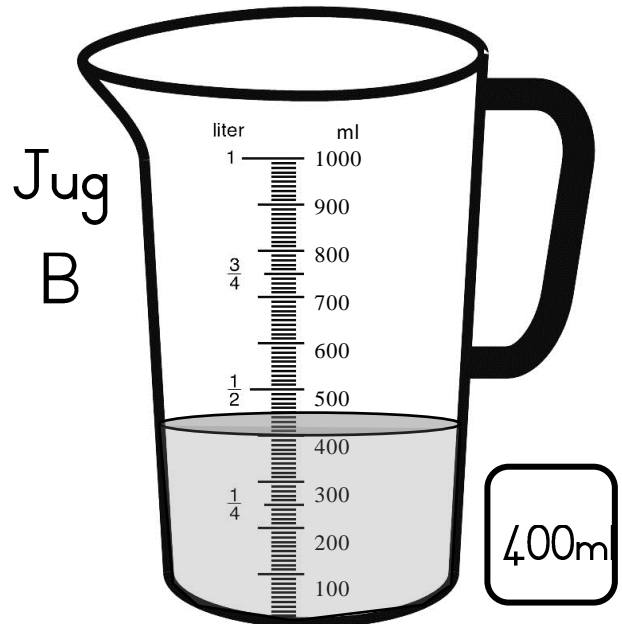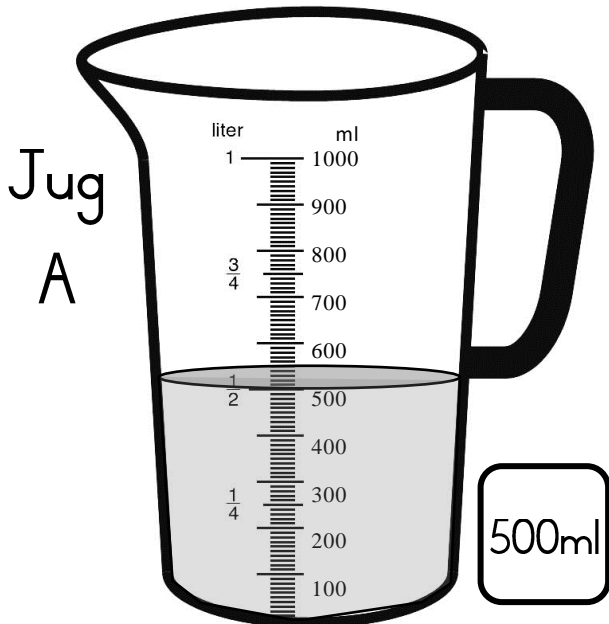
750ml

1. How much water can the measuring a jug hold? 1000ml / 1L
2. Which jug holds the most? Jug C
3. Which jug holds the least? Jug B
4. How much more does jug C have than jug B? 1000ml - 400ml = 600ml
5. How much more does jug D have than jug A? 750ml - 500ml = 250ml

ml and L

Write the capacity of each arrow in the blocks.

| 900ml |
| 500ml |
| 350ml |
| 100ml |

| 1000ml |
| 750ml |
| 400ml |
| 250ml |

liter — ml

1 — 1000
— 900
$\frac{3}{4}$ — 800
— 700
— 600
$\frac{1}{2}$ — 500
— 400
$\frac{1}{4}$ — 300
— 200
— 100

Convert between milliliter and liter

Example:

3750 ml = 3 liters and 750 millilitres

$4\frac{1}{2}$ liters = 4 500 millilitres

1. 8320 ml = 8 liter and 320ml
2. $5\frac{1}{2}$ liters = 5500 ml
3. 1000ml = 1 liter
4. $\frac{1}{2}$ liter = 500 ml