## Q1.

Pat has $x$ cards.

Jim has 4 more cards than Pat.
(i) Write down an expression, in terms of $x$, for the number of cards Jim has.

Lex has 2 times as many cards as Pat.
(ii) Write down an expression, in terms of $x$, for the number of cards Lex has.

Q2.
A shop sells pencils in packs and in boxes.
There are

> 4 pencils in a pack and 12 pencils in a box.


Lola buys $d$ packs of pencils.
(a) Write down an expression, in terms of $d$, for the number of pencils Lola buys.
$\qquad$

Rory buys $x$ packs of pencils and $y$ boxes of pencils.
(b) Write down an expression, in terms of $x$ and $y$, for the total number of pencils Rory buys.
$\qquad$

Q3.
Cups are sold in packs and in boxes.
There are 12 cups in each pack.
There are 18 cups in each box.
Alison buys $p$ packs of cups and $b$ boxes of cups.
Write down an expression, in terms of $p$ and $b$, for the total number of cups Alison buys.

Q4.

Abigail is $a$ years old.
Bob is $b$ years old.
Bob is older than Abigail.
(a) Write down, in terms of $a$ and $b$, an expression for how many years older Bob is than Abigail.
$\qquad$
(b) Write down, in terms of a and b , an expression for the mean age, in years, of Abigail and Bob.
$\qquad$

Q5.

Alex is $x \mathrm{~cm}$ tall.
Bob is 10 cm taller than Alex.
Cath is 4 cm shorter than Alex.
Write an expression, in terms of $x$, for the mean of their heights in centimetres.

## Q6.

There are 20 sweets in a box.
$x$ of the sweets are red.
The rest of the sweets are yellow.
Tom takes at random a sweet from the box.
Write down an expression, in terms of $x$, for the probability that Tom takes a yellow sweet.

## Q7.

Kiaria is 7 years older than Jay.
Martha is twice as old as Kiaria.
The sum of their three ages is 77
Find the ratio of Jay's age to Kiaria's age to Martha's age.

Q8.
There are 20 red counters and 15 blue counters in a bag.
(a) Write down the ratio of the number of red counters to the number of blue counters.

Give your ratio in its simplest form.

There are only red counters and blue counters in the bag.
$x$ red counters are taken from the bag.
$y$ blue counters are taken from the bag.
(b) Write down an expression, in terms of $x$ and $y$, for the total number of counters now in the bag.

