(1)

Here is a part-whole model.

a) Write an equation for the part-whole model.
b) Solve the equation to work out the value of 0
2) If each multilink cube represents $x$, form and solve an equation to find the value $x$.


3 There is the same number of counters under each cup.
There are 16 counters in total.

a) Use $y$ to represent the number of counters under each cup.

Write an equation in terms of $y$.
b) Solve the equation to find the value of $y$.
c) How many counters are under each cup?

4 Write an algebraic equation to represent each bar model.
Find the values of $a$ and $b$.
a)

b)

| 46 |  |
| :---: | :---: |
| $3 b$ | 10 |

(5) Solve the equations.
a) $5 x+1=31$
b) $3 x-3=9$
c) $4 p-11=3$
d) $9=2 y+8$
e) $10 g-2=46$
f) $4+3 y=28$
6) Dani thinks of a number.

She doubles it and adds 3
She gets the answer 15
a) Write an equation to represent Dani's problem.
b) Solve the equation to find her number.


Alex is $y$ years old.
Her friend Brett is 3 years older.
The total of their ages is 25
How old are Alex and Brett?

8
a) Work out the cost of one banana and one orange.

b) Compare methods with a partner.

