

Algebra Challenge Cards **Answers**

1. Write all the possible values of a and b when they are both different whole numbers between 15 and 25.

$$a - b = 7$$

a	22	23	24	25
b	15	16	17	18

2. p is 4 more than q .

Write two equations to show the relationship between p and q .

$$p - 4 = q$$

$$q + 4 = p$$

3. b is 12 less than c .

Write two equations to show the relationship between b and c .

$$b + 12 = c$$

$$c - 12 = b$$

4. A farmer sells barrels of milk for £14.

A discount of £6 on any order is given for paying in advance.

Write the formula that shows the cost of buying barrels of milk (b) paid for in advance.

$$14b - 6$$

5. Find three different possible pairs of whole numbers that satisfy these equations:

$a - b = 6$				
a	10	9	8	
b	4	3	2	

$cd = 16$				
c	1	2	4	
d	16	8	4	

$50 - ef = 14$				
e	2	3	4	
f	18	12	9	

6. Write all the possible values of a and b when they are both different whole numbers between 6 and 11.

$$a + b = 17$$

a	6	7	8	9
b	11	10	9	8

7. Write all the possible values of a and b when they are both different whole numbers between 20 and 30.

$$a - b = 4$$

a	24	25	26	27	28	29	30
b	20	21	22	23	24	25	26