# **Solving Equations with Brackets**

Question 1 – Complete these to test the waters!

a) 
$$2(y + 2) = 8$$

b) 
$$3(a + 2) = 12$$

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$$2(y + 2) = 8$$
 b)  $3(a + 2) = 12$  c)  $4(x - 4) = 40$ 

d) 
$$5(c-3) = 35$$
 e)  $7(3+a) = 49$  f)  $(-2+x) = 36$ 

e) 
$$7(3 + a) = 49$$

$$f)(-2 + x) = 36$$

g) 
$$6(6 + p) = 48$$
 h)  $9(x + 4) = 18$  i)  $4(a + 6) = 4$ 

h) 
$$9(x + 4) = 18$$

i) 
$$4(a + 6) = 4$$

$$i) 8(3 + m) = 8$$

Question 2 – More practice? Work here

a) 
$$2(4x + 8) = 32$$

b) 
$$5(7x - 4) = 15$$

a) 
$$2(4x + 8) = 32$$
 b)  $5(7x - 4) = 15$  c)  $5(5x - 3) = 35$ 

d) 
$$4(6x + 3) = 36$$
 e)  $7(2x - 7) = 7$  f)  $6(2x - 3) = 42$ 

e) 
$$7(2x-7) = 7$$

f) 
$$6(2x - 3) = 42$$

Question 3 – Need a bigger challenge? Go!

a) 
$$3(2x + 1) + 2(4x + 2) = 35$$

b) 
$$2(x + 3) + 3(x + 1) = 24$$

c) 
$$4(3x-2) + 8(x+1) = 100$$

d) 
$$6(x + 2) + 4(3 - x) = 30$$

e) 
$$5(2x + 3) + 2(5x + 1) = 37$$

## Question 4 – The Big Time – These are tough!

a) 
$$2(3x + 1) - 3(x + 2) = 2$$

b) 
$$5(2x + 3) - 3(3x - 2) = 22$$

c) 
$$4(2x-3) + 2(x-4) = 10$$

d) 
$$3(4x-2) + 5(x-1) = 23$$

e) 
$$8(2x-1)-3(5x-3)=1$$

## <u>Solving Equations With Brackets – Answers</u>

### Question 1

a) 
$$y = 2$$
 b)  $a = 2$  c)  $x = 14$  d)  $c = 10$  e)  $a = 4$  f)  $x = 8$ 

g) 
$$p = 2$$
 h)  $x = -2$  i)  $a = -5$  j)  $m = -2$ 

#### **Question 2**

a) 
$$x = 2$$
 b)  $x = 1$  c)  $x = 2$  d)  $x = 1$  e)  $x = 4$  f)  $x = 5$ 

### **Question 3**

a) 
$$x = 2$$
 b)  $x = 3$  c)  $x = 5$  d)  $x = 3$  e)  $x = 1$ 

#### Question 4

a) 
$$x = 2$$
 b)  $x = 1$  c)  $x = 3$  d)  $x = 2$  e)  $x = 0$