

8:02 | Equations with Grouping Symbols

Name: _____ Class: _____

Examples

1 Expand.

a $4(x - 3) = 4 \times x - 4 \times 3$
 $= 4x - 12$

b $7(3c + 5) = 7 \times 3c + 7 \times 5$
 $= 21c + 35$

2 Expand, then solve.

a $3(y - 4) = 24$
 $3y - 12 = 24$
 $3y = 36$
 $\therefore y = 12$

b $5(2h + 1) = 35$
 $10h + 5 = 35$
 $10h = 30$
 $\therefore h = 3$

Exercise

1 Expand.

a $5(x + 3)$

b $7(a - 4)$

c $9(2y + 3)$

d $8(3m - 1)$

e $4(k - 7)$

f $3(q + 8)$

g $6(2y + 1)$

h $5(4x - 3)$

i $10(4n + 5)$

j $8(2x + 1)$

k $7(t - 5)$

l $12(c + 1)$

2 Expand, then solve.

a $2(a + 3) = 8$

b $5(m - 1) = 10$

c $7(2n + 1) = 21$

d $8(x + 5) = 80$

e $4(2y - 3) = 20$

f $8(7k - 3) = 144$

g $3(r + 1) = 33$

h $2(x - 4) = 30$

i $9(c + 6) = 63$

j $10(2a - 3) = 50$

k $2(3t + 5) = 10$

l $3(4y + 3) = 63$

m $6(d - 10) = 18$

n $5(x + 2) = 40$

o $7(m - 4) = 56$

p $3(b + 5) = 36$

q $2(3c - 5) = -4$

r $5(2p - 1) = -25$

Fun Spot 8:02 | What bear goes around scaring other animals?

Expand these, then match the letters with the answers below.

B $4(a + 5)$

E $7(a - 4)$

H $5(2a - 1)$

I $3(a + 6)$

N $-2(2a - 3)$

O $-4(a + 2)$

T $-3(4a + 3)$

W $-(a - 4)$

$-a + 4$	$3a + 18$	$-4a + 6$	$-4a + 6$	$3a + 18$	$7a - 28$

$-12a - 9$	$10a - 5$	$7a - 28$

$4a + 20$	$-4a - 8$	$-4a - 8$

fun spot

8:02 Equations with Grouping Symbols

1 a	$5x + 15$	b	$7a - 28$	c	$18y + 27$	d	$24m - 8$	e	$4k - 28$	f	$3q + 24$
g	$12y + 6$	h	$20x - 15$	i	$40n + 50$	j	$16x + 8$	k	$7t - 35$	l	$12c + 12$
2 a	$a = 1$	b	$m = 3$	c	$n = 1$	d	$x = 5$	e	$y = 4$	f	$k = 3$
g	$r = 10$	h	$x = 19$	i	$c = 1$	j	$a = 4$	k	$t = 0$	l	$y = 4.5$
m	$d = 13$	n	$x = 6$	o	$m = 12$	p	$b = 7$	q	$c = 1$	r	$p = -2$