



## Factoring - Simplifying Multiplication with Factors - Bracketed Factors to

### Composite

**1** Multiply the factors in the brackets to create a single multiplication

$$(3 \times 3 \times 3) \times (3 \times 5 \times 5) \quad (2 \times 2 \times 3 \times 5) \times (3 \times 3)$$

A	B	C	D	E	F
$27 \times 75$	$22 \times 73$	$24 \times 79$	$27 \times 70$	$24 \times 70$	$23 \times 79$

**2** Multiply the factors in the brackets to create a single multiplication

A	B	C	D	E	F
$56 \times 9$	$55 \times 13$	$56 \times 6$	$60 \times 9$	$59 \times 8$	$55 \times 12$

**3** Multiply the factors in the brackets to create a single multiplication

$$(2 \times 7 \times 7) \times (2 \times 5 \times 7) \quad (2 \times 2 \times 5) \times (3 \times 3 \times 7)$$

A	$94 \times 70$	B	$96 \times 68$
C	$102 \times 71$	D	$93 \times 69$
E	$98 \times 70$	F	$102 \times 68$

**4** Multiply the factors in the brackets to create a single multiplication

A	B	C	D	E	F
$17 \times 59$	$24 \times 66$	$20 \times 63$	$19 \times 67$	$21 \times 63$	$23 \times 58$

**5** Multiply the factors in the brackets to create a single multiplication

$$(2 \times 3) \times (2 \times 2 \times 2 \times 5) \quad (2 \times 3 \times 7) \times (3 \times 5 \times 5)$$

A	B	C	D	E	F
$9 \times 42$	$3 \times 37$	$1 \times 39$	$1 \times 36$	$6 \times 40$	$10 \times 44$

**6** Multiply the factors in the brackets to create a single multiplication

A	B	C	D	E	F
$41 \times 75$	$39 \times 76$	$45 \times 77$	$43 \times 71$	$42 \times 75$	$42 \times 74$

**7** Multiply the factors in the brackets to create a single multiplication

$$(3 \times 5 \times 5) \times (3 \times 3 \times 5) \quad (2 \times 5 \times 7) \times (2 \times 2 \times 5)$$

A	B	C	D	E	F
$75 \times 45$	$71 \times 46$	$72 \times 47$	$72 \times 41$	$72 \times 44$	$70 \times 48$

**8** Multiply the factors in the brackets to create a single multiplication

A	B	C	D	E	F
$66 \times 18$	$66 \times 20$	$74 \times 23$	$68 \times 15$	$70 \times 20$	$67 \times 16$