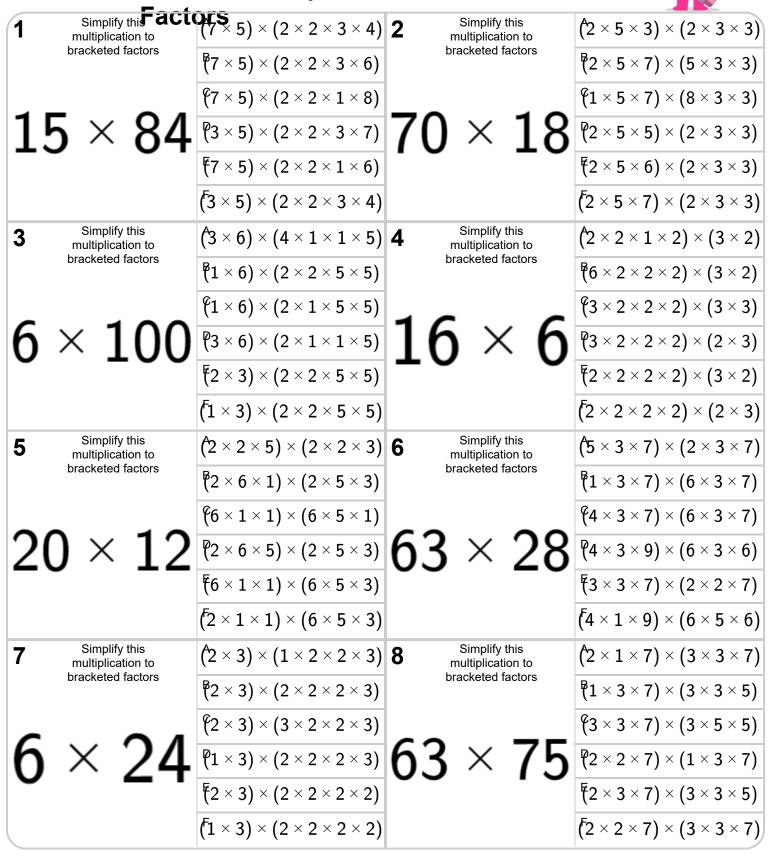# Factoring - Simplifying Multiplication with Factors - Composite to Bracketed Factors

1 Simplify this multiplication to bracketed factors

15×84

A $(7 \times 5) \times (2 \times 2 \times 3 \times 4)$
B $(7 \times 5) \times (2 \times 2 \times 3 \times 6)$
C $(7 \times 5) \times (2 \times 2 \times 1 \times 8)$
D $(3 \times 5) \times (2 \times 2 \times 3 \times 7)$
E $(7 \times 5) \times (2 \times 2 \times 1 \times 6)$
F $(3 \times 5) \times (2 \times 2 \times 3 \times 4)$

2 Simplify this multiplication to bracketed factors

70×18

A $(2 \times 5 \times 3) \times (2 \times 3 \times 3)$
B $(2 \times 5 \times 7) \times (5 \times 3 \times 3)$
C $(1 \times 5 \times 7) \times (8 \times 3 \times 3)$
D $(2 \times 5 \times 5) \times (2 \times 3 \times 3)$
E $(2 \times 5 \times 6) \times (2 \times 3 \times 3)$
F $(2 \times 5 \times 7) \times (2 \times 3 \times 3)$

3 Simplify this multiplication to bracketed factors

6×100

A $(3 \times 6) \times (4 \times 1 \times 1 \times 5)$
B $(1 \times 6) \times (2 \times 2 \times 5 \times 5)$
C $(1 \times 6) \times (2 \times 1 \times 5 \times 5)$
D $(3 \times 6) \times (2 \times 1 \times 1 \times 5)$
E $(2 \times 3) \times (2 \times 2 \times 5 \times 5)$
F $(1 \times 3) \times (2 \times 2 \times 5 \times 5)$

4 Simplify this multiplication to bracketed factors

16×6

A $(2 \times 2 \times 1 \times 2) \times (3 \times 2)$
B $(6 \times 2 \times 2 \times 2) \times (3 \times 2)$
C $(3 \times 2 \times 2 \times 2) \times (3 \times 3)$
D $(3 \times 2 \times 2 \times 2) \times (2 \times 3)$
E $(2 \times 2 \times 2 \times 2) \times (3 \times 2)$
F $(2 \times 2 \times 2 \times 2) \times (2 \times 3)$

5 Simplify this multiplication to bracketed factors

20×12

A $(2 \times 2 \times 5) \times (2 \times 2 \times 3)$
B $(2 \times 6 \times 1) \times (2 \times 5 \times 3)$
C $(6 \times 1 \times 1) \times (6 \times 5 \times 1)$
D $(2 \times 6 \times 5) \times (2 \times 5 \times 3)$
E $(6 \times 1 \times 1) \times (6 \times 5 \times 3)$
F $(2 \times 1 \times 1) \times (6 \times 5 \times 3)$

6 Simplify this multiplication to bracketed factors

63×28

A $(5 \times 3 \times 7) \times (2 \times 3 \times 7)$
B $(1 \times 3 \times 7) \times (6 \times 3 \times 7)$
C $(4 \times 3 \times 7) \times (6 \times 3 \times 7)$
D $(4 \times 3 \times 9) \times (6 \times 3 \times 6)$
E $(3 \times 3 \times 7) \times (2 \times 2 \times 7)$
F $(4 \times 1 \times 9) \times (6 \times 5 \times 6)$

7 Simplify this multiplication to bracketed factors

6×24

A $(2 \times 3) \times (1 \times 2 \times 2 \times 3)$
B $(2 \times 3) \times (2 \times 2 \times 2 \times 3)$
C $(2 \times 3) \times (3 \times 2 \times 2 \times 3)$
D $(1 \times 3) \times (2 \times 2 \times 2 \times 3)$
E $(2 \times 3) \times (2 \times 2 \times 2 \times 2)$
F $(1 \times 3) \times (2 \times 2 \times 2 \times 2)$

8 Simplify this multiplication to bracketed factors

63×75

A $(2 \times 1 \times 7) \times (3 \times 3 \times 7)$
B $(1 \times 3 \times 7) \times (3 \times 3 \times 5)$
C $(3 \times 3 \times 7) \times (3 \times 5 \times 5)$
D $(2 \times 2 \times 7) \times (1 \times 3 \times 7)$
E $(2 \times 3 \times 7) \times (3 \times 3 \times 5)$
F $(2 \times 2 \times 7) \times (3 \times 3 \times 7)$