

# Breaking Factors into Smaller Factors

# Category 1

Breaking down basic facts

$2 \times 3 \times 4$

$4 \times 3 \times 2$

$6 \times 4$

$3 \times 2 \times 6$

$3 \times 3 \times 2 \times 2$

$2 \times 2 \times 9$

$6 \times 6$

$2 \times 3 \times 3 \times 3$

$3 \times 6 \times 3$

$9 \times 3 \times 2$

$6 \times 9$

$2 \times 3 \times 8$

$4 \times 2 \times 6$

$6 \times 8$

$2 \times 3 \times 2 \times 3$

$3 \times 3 \times 4$

$9 \times 2 \times 2$

$9 \times 4$

$4 \times 4 \times 2$

$2 \times 8 \times 2$

$2 \times 2 \times 2 \times 2 \times 2$

$4 \times 8$

$4 \times 3 \times 4$

$2 \times 2 \times 12$

$8 \times 3 \times 2$

$2 \times 2 \times 3 \times 4$

$12 \times 4$

$5 \times 2 \times 6$

$5 \times 4 \times 3$

$2 \times 2 \times 3 \times 5$

$5 \times 12$

$5 \times 2 \times 4$

$4 \times 5 \times 2$

$2 \times 2 \times 5 \times 2$

$8 \times 5$

# Category 2

Uses the associative property to solve 1 x 2-digit multiplication problems

$3 \times 5 \times 4$

$2 \times 15 \times 2$

$15 \times 4$

$2 \times 10 \times 5$

$4 \times 5 \times 5$

$20 \times 5$

$4 \times 2 \times 16$

$4 \times 4 \times 8$

$2 \times 4 \times 8 \times 2$

$16 \times 8$

$5 \times 5 \times 8$

$2 \times 4 \times 25$

$2 \times 25 \times 4$

$25 \times 8$

$8 \times 9 \times 3$

$3 \times 24 \times 3$

$9 \times 12 \times 2$

$24 \times 9$

$32 \times 4 \times 2$

$16 \times 4 \times 4$

$32 \times 8$

$2 \times 4 \times 35$

$8 \times 5 \times 7$

$8 \times 35$

$8 \times 10 \times 5$

$50 \times 2 \times 4$

$25 \times 4 \times 4$

$50 \times 8$

$9 \times 10 \times 3$

$5 \times 6 \times 3 \times 3$

$15 \times 2 \times 9$

$30 \times 9$

# Category 3

Uses the associative property to solve 2 x 2-digit multiplication problems

$3 \times 4 \times 25$

$5 \times 12 \times 5$

$5 \times 2 \times 25$

$12 \times 25$

$2 \times 15 \times 6$

$5 \times 12 \times 3$

$4 \times 5 \times 3 \times 3$

$4 \times 5 \times 9$

$12 \times 15$

$4 \times 4 \times 25$

$8 \times 2 \times 25$

$16 \times 5 \times 5$

$16 \times 25$

$2 \times 45 \times 8$

$5 \times 16 \times 9$

$4 \times 5 \times 4 \times 9$

$16 \times 45$

$6 \times 6 \times 3 \times 5$

$6 \times 5 \times 3 \times 6$

$4 \times 15 \times 9$

$36 \times 15$

$2 \times 12 \times 3 \times 5$

$4 \times 15 \times 6$

$24 \times 5 \times 3$

$24 \times 15$

$2 \times 15 \times 4 \times 3 \times 3$

$8 \times 5 \times 9 \times 3 \times 9$

$24 \times 5 \times 9$

$72 \times 15$

$6 \times 5 \times 7 \times 3$

$9 \times 5 \times 2 \times 7$

$7 \times 5 \times 2 \times 9$

$18 \times 35$

$2 \times 35 \times 6$

$12 \times 5 \times 7$

$3 \times 4 \times 5 \times 7$

$12 \times 35$