

Multiplicative Reasoning **Name:**

16 x 20 is the same as 16 x 2 x 10

So, we double 16 which is 32 and then multiply by 10 = 320

Our working might look like

$$16 \times 20$$

$$16 \times 2 \times 10$$

$$(10 \times 2) + (6 \times 2)$$

$$20 + 12 = 32$$

$$32 \times 10 = 320$$

$$16 \times 20 = 320$$

$$10 \times 20 + 6 \times 20$$

$$200 + 120$$

NOTE

If the expression has 2 zeros i.e. 150×20 - 12×200 - 6×200

Then the product has 2 zeros **300** **2400** **1200**

If the expression has 3 zeros i.e. 200×20 - 12×2000 - 60×200

Then the product has 2 zeros **4000** **24 000** **12 000**

$$13 \times 10 =$$

$$12 \times 10 =$$

$$12 \times 38 =$$

$$16 \times 1000 =$$

$$18 \times 1000 =$$

$$(\underline{\quad} \times 38) + (\underline{\quad} \times 38)$$

$$13 \times 100 =$$

$$21 \times 100 =$$

$$2 \times 30 = \quad 2 \times 8 =$$

$$15 \times 10 =$$

$$22 \times 10 =$$

$$\underline{\quad} + \underline{\quad}$$

$$24 \times 20 =$$

$$31 \times 20 =$$

$$12 \times 26 =$$

$$31 \times 200 =$$

$$41 \times 200 =$$

$$(\underline{\quad} \times 26) + (\underline{\quad} \times 26)$$

$$410 \times 20 =$$

$$50 \times 200 =$$

$$2 \times 20 = \quad 2 \times 6 =$$

$$400 \times 20 =$$

$$500 \times 20 =$$

$$\underline{\quad} + \underline{\quad}$$

$$150 \times 20 =$$

$$50 \times 20 =$$