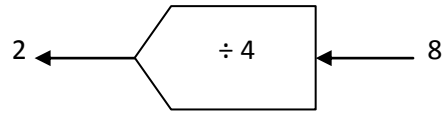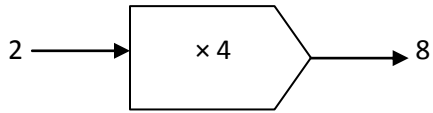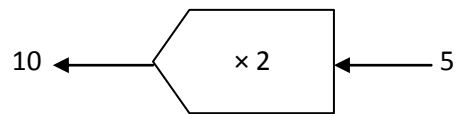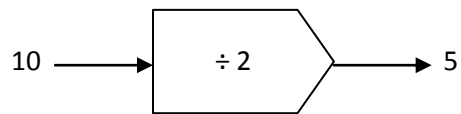# The Relationship Between Multiplication and Division

**Example 1:**
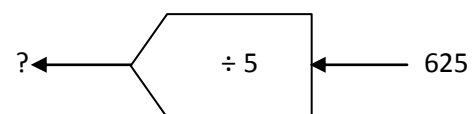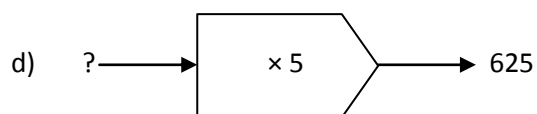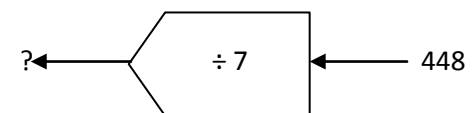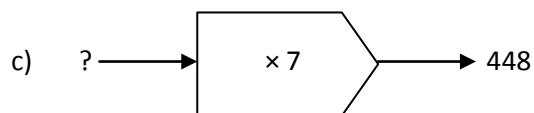
2 ——→ ×4 ——→ 8          2 ←—— ÷4 ←—— 8

**Example 2:**

10 ——→ ÷2 ——→ 5          10 ←—— ×2 ←—— 5

Use the above examples to help you find the missing numbers.

a)  ? ——→ ×4 ——→ 20          ? ←—— ÷4 ←—— 20

b)  ? ——→ ÷5 ——→ 9          ? ←—— ×5 ←—— 9

c)  ? ——→ ×7 ——→ 448          ? ←—— ÷7 ←—— 448

d)  ? ——→ ×5 ——→ 625          ? ←—— ÷5 ←—— 625
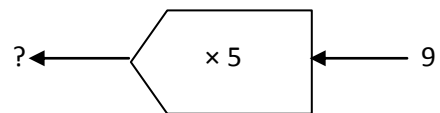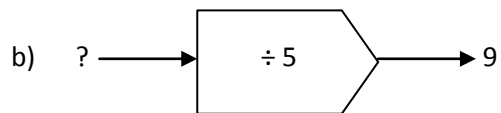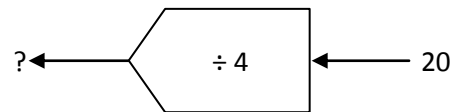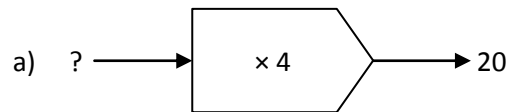
Find the missing number.  You may use a calculator.

e)  ? ——→ ×8 ——→ 72          f)  ? ←—— ×10 ←—— 190

g) ? $\longrightarrow$ × 12 $\longrightarrow$ 156

h) ? $\longleftarrow$ × 17 $\longleftarrow$ 765

i) ? $\longrightarrow$ × 30 $\longrightarrow$ 1200

j) ? $\longleftarrow$ × 15 $\longleftarrow$ 525

k) ? $\longrightarrow$ ÷ 5 $\longrightarrow$ 7

l) 17 $\longleftarrow$ ÷ 16 $\longleftarrow$ ?

m) ? $\longrightarrow$ × 55 $\longrightarrow$ 1045

n) 38 $\longleftarrow$ ÷ 27 $\longleftarrow$ ?

o) 6 $\longrightarrow$ × ? $\longrightarrow$ 42

p) 6 $\longleftarrow$ ÷ ? $\longleftarrow$ 42
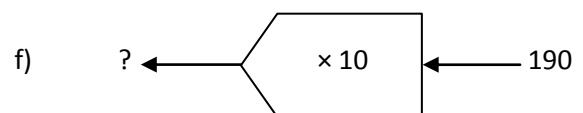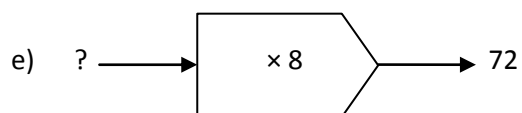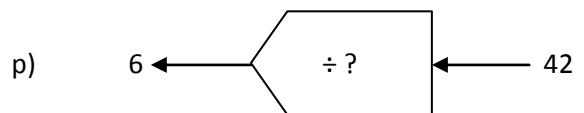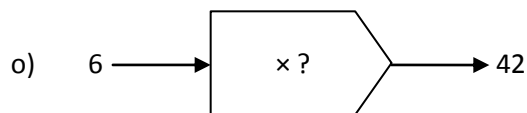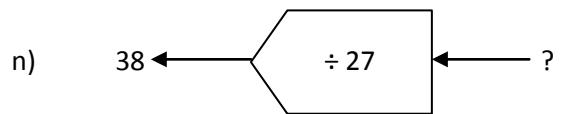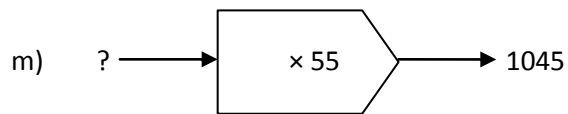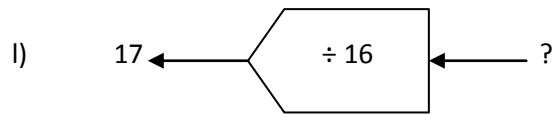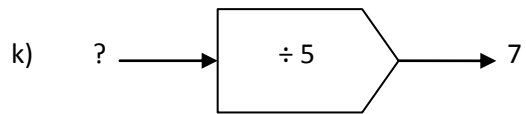
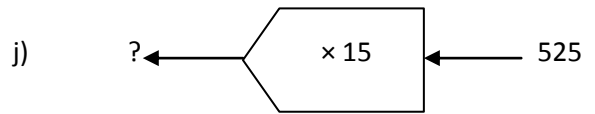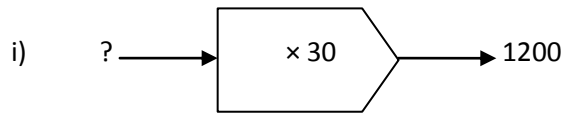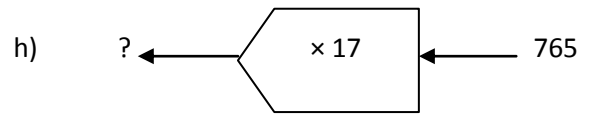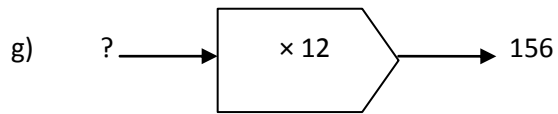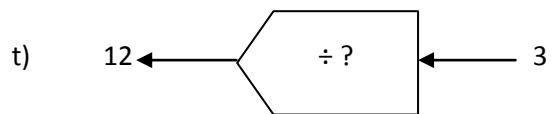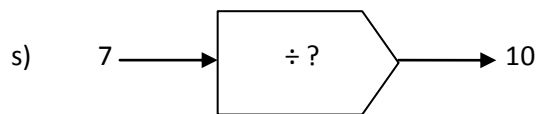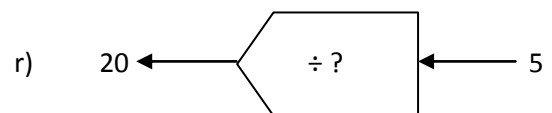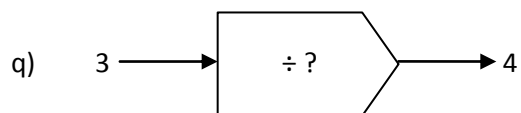**Hint**: to work out o and p use the idea that in multiplication you can exchange the position of two numbers but not when dividing. (Mathematicians say additions and multiplications are commutative but not subtractions and divisions.)

**Challenge** (you may use a calculator)

q) 3 $\longrightarrow$ ÷ ? $\longrightarrow$ 4

r) 20 $\longleftarrow$ ÷ ? $\longleftarrow$ 5

s) 7 $\longrightarrow$ ÷ ? $\longrightarrow$ 10

t) 12 $\longleftarrow$ ÷ ? $\longleftarrow$ 3

u)   Hafsa was thinking of a number.  She multiplied the number with 21 and got 777.  What number was she thinking of?

v)   Mustafa said to Mahad I divided a number by 13 and got the answer 69 then Mahad was challenged to find Mustafa's number.  Can you find Mustafa's number?