EQUIVALENT FRACTIONS
APPLICATIONS
FOR MECHANICS

When car mechanics use American drill bits, sockets and Allen keys on older cars, they use equivalent (equal) fractions. These American tools are sized in halves, quarters, eighths, sixteenths and so on.

To work out equivalent fractions, multiply the top number (numerator) and the bottom number (denominator) of the fraction by the same number.

Example

$\frac{1}{2} = \frac{2}{4}$

The top and bottom numbers were multiplied by 2.

DRILL BITS

Q1. Fill in the missing numbers.

(a) $\frac{1}{2} = \frac{\quad}{4} = \frac{\quad}{8} = \frac{\quad}{16} = \frac{\quad}{32}$

(b) $\frac{3}{8} = \frac{\quad}{16} = \frac{\quad}{32} = \frac{\quad}{64}$

SOCKETS

Q2. Fill in the missing numbers.

(a) $\frac{3}{4} = \frac{\quad}{8} = \frac{\quad}{16} = \frac{\quad}{32}$

(b) $\frac{5}{8} = \frac{\quad}{16} = \frac{\quad}{32} = \frac{\quad}{64}$

ALLEN KEYS

Q3.Fill in the missing numbers.

(a) $\frac{5}{16} = \frac{\quad}{32} = \frac{\quad}{64}$

(b) $\frac{11}{16} = \frac{\quad}{32} = \frac{\quad}{64}$

ANSWERS

Q1. (a) 2, 4, 8, 16
(b) 6, 12, 24

Q2. (a) 6, 12, 24
(b) 10, 20, 40

Q3. (a) 10, 20
(b) 22,44