

CONVERTING SQUARE UNITS

CONVERT 6 SQUARE YARDS INTO SQUARE FEET.

* $1 \text{ yd} = 3 \text{ ft}$

	3'	3	3	
3'	3x3 =9	9	9	
3	9	9	9	1yd
				1yd

$6 \times 9 = 54 \text{ sq ft}$
 $= 54 \text{ ft}^2$

WHEN YOU CONVERT SQUARE MEASURES,
YOU NEED TO SQUARE THE CONVERSION RATIO.

$6 \text{ yd}^2 \times \frac{3^2 \text{ ft}^2}{1^2 \text{ yd}^2}$

(Arrows point from the word "SQUARED" to the 3 and 1 in the fraction above)

YOU MUST SQUARE BOTH OF THESE!!

CONVERT 8 m^2 INTO SQUARE FEET:

$$8 \text{ m}^2 \times \frac{1^2 \text{ ft}^2}{0.3048^2 \text{ m}^2}$$

\uparrow BECOMES "0.0929"

$$\frac{8}{0.0929} = \boxed{86.11 \text{ ft}^2}$$

Convert 12 km^2 to miles²

$$12 \text{ km}^2 \times \frac{1^2 \text{ mi}^2}{1.609^2 \text{ km}^2}$$

$$12 \times \frac{1 \text{ mi}^2}{2.589}$$

$$\boxed{4.63 \text{ mi}^2}$$

Convert 8 ft^2 into m^2

$$8 \text{ ft}^2 \times \frac{.3048^2 \text{ m}^2}{1^2 \text{ ft}^2}$$

$$8 \text{ ft}^2 \times \frac{0.0929 \text{ m}^2}{1 \text{ ft}^2}$$

$$\boxed{0.743 \text{ m}^2}$$

CONVERT 6 sq km into sq cm

$$6 \cancel{\text{km}^2} \times \frac{1000^2 \cancel{\text{m}^2}}{1^2 \cancel{\text{km}^2}} \times \frac{100^2 \text{cm}}{1^2 \cancel{\text{m}^2}}$$

$$6 \times 1000^2 \times 100^2$$

" $6 \times 10^{10} \text{cm}^2$ " ← 10 ZEROS.

"SCIENTIFIC NOTATION"

(used for BIG OR SMALL NUMBERS)

$60,000,000,000 \text{cm}^2$

CONVERT 6 sq cm into sq km

$$6 \text{ cm}^2 \times \frac{1^2 \text{ m}^2}{100^2 \text{ cm}^2} \times \frac{1^2 \text{ km}^2}{1000^2 \text{ m}^2}$$

$$\frac{6}{10000 \times 1000000}$$

$$6 \times 10^{-10} \text{ km}^2$$

" $6 \times 10^{-10} \text{ km}^2$

Decimal
MOVED
LEFT
TEN
SPACES.

$0.0000000006 \text{ km}^2$