

CONVERTING RATES

JIMMY DRIVES 132 km/h.
CONVERT INTO mi/h ↑

↲ MEANS DIVISION

$$\frac{132 \text{ km}}{1 \text{ HOUR}} \times \frac{1 \text{ mi}}{1.609 \text{ km}} = \boxed{82.04 \frac{\text{mi}}{\text{h}}}$$

← STAYS ON TOP
← STAYS ON BOTTOM

$$82.04 \frac{\text{mi}}{\text{h}} = 82.04 \text{ mi/h} = 82.04 \text{ mph}$$

JIMMY DRIVES 100 mi/h. CONVERT TO
METERS PER SECOND

(METERS PER SECOND IS ALWAYS USED IN PHYSICS PROBLEMS)

$$\frac{100 \text{ mi}}{1 \text{ h}} \times \frac{1.609 \text{ km}}{1 \text{ mi}} \times \frac{1000 \text{ m}}{1 \text{ km}} \times \frac{1 \text{ h}}{60 \text{ min}} \times \frac{1 \text{ min}}{60 \text{ sec}} = \frac{160900}{3600} = \boxed{447 \text{ m/s}}$$

Annotations: CANCEL (above 100 mi, below 1 h), CANCEL (above 1.609 km, below 1 mi), CANCEL (above 1000 m, below 1 km), KEEP (above 1 h, below 60 min), CANCEL (above 1 min, below 60 sec), CANCEL (below 1 h), CANCEL (below 1 mi), CANCEL (below 1 km).

CLOTH costs \$12.99 / YARD

DETERMINE THE COST / METER

"12.99 PER YARD"



HAVE to
PUT "YARDS"
ON TOP SO
THEY CANCEL!

$$\frac{\$12.99}{1 \cancel{\text{yd}}} \times \frac{1 \cancel{\text{yd}}}{0.9144 \text{m}} = \frac{12.99}{0.9144} = \boxed{\$14.21/\text{m}}$$

CONVERT \$14.21 / SQUARE FOOT IN to

COST PER SQUARE YARD

$$\frac{\$14.21}{1 \cancel{\text{ft}^2}} \times \frac{3^2 \cancel{\text{ft}^2}}{1 \text{yd}^2} = \frac{14.21 \times 9}{\text{yd}^2} = \boxed{\$127.89/\text{yd}^2}$$


ft on top so
it CANCELS



9x
BIGGER?

CONVERT \$127.89 PER CUBIC INCH
INTO CUBIC CM

CUBIC INCH = in^3

↑ cubic?
l x w x h! 

$$\frac{\$127.89}{\text{in}^3} \times \frac{1^3 \text{ in}^3}{2.54^3 \text{ cm}^3} = \frac{127.89}{16.39} = \boxed{\begin{array}{l} \$7.80/\text{cm}^3 \\ \text{or} \\ \$7.80/\text{cc} \end{array}}$$

y^x Button ON CALC.

Function: $\boxed{2} \boxed{.} \boxed{5} \boxed{4} \boxed{y^x} \boxed{3} \boxed{=}$