

***** **Mathematical Amusement** *****

Collected from Exam Papers

1

Problem: Simplify

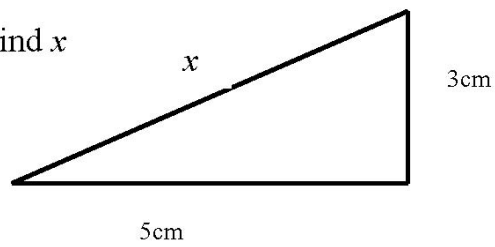
$$\frac{2}{\sqrt{2}} = ?$$

Answer:

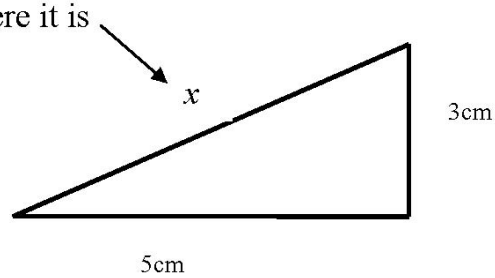
$$\frac{2}{\sqrt{2}} = \sqrt{2}$$

2

Problem: Find x



Answer: Here it is



3

Problem: Find limit as $n \rightarrow \infty$

$$\frac{1}{n} \sin x = ?$$

Answer:

$$\frac{1}{n} \sin x = \frac{1}{\cancel{n}} \cancel{\sin} x = six = 6$$

4

Problem: Given that

$$\lim_{x \rightarrow 8} \frac{1}{x-8} = \infty$$

Find

$$\lim_{x \rightarrow 5} \frac{1}{x-5} = ?$$

Answer:

$$\lim_{x \rightarrow 5} \frac{1}{x-5} = 5$$

5

Problem: Expand

$$(a + b)^n = ?$$

Answer:

$$\begin{aligned} & (a + b)^n \\ = & (a + b)^n \\ = & (a + b)^n \\ = & (a + b)^n \\ = & \dots\dots\dots \end{aligned}$$