

Problem 0580/42/F/M/16 Q8

y is directly proportional to the positive square root of $(x + 2)$.

When $x = 7$, $y = 9$.

Find y when $x = 23$.

Sol

$$y = k \sqrt{x+2}$$

$$k = \frac{y}{\sqrt{x+2}} = \frac{9}{\sqrt{7+2}} = 3$$

$$y = 3\sqrt{x+2}$$

$$y = 3\sqrt{23+2}$$

$y = \overset{15}{\dots\dots\dots} [3]$