Start here for
Question Number: **1**

a) $x^2 = 4x$

$x = 4$

b) $\overline{\sqrt{5}-2} = a + b\sqrt{5}$ $1 = \sqrt{5} - 2$ $0 = -3 + \sqrt[3]{5}$

$b = 2$ ~~and~~ $a =$ $\therefore a = -3$ and $b = 2.$

c) $x^2 + y^2 = r^2$

$\therefore -1^2 + 2^2 = 25$

~~d)~~ d) $|2x + 3| = 9$

$\therefore 2x + 3 = 9$

$2x = 6$

$x = 3.$

e) $\frac{dy}{dx} x^2 \tan x = 2x \cdot \sec^2 x$

f) $S\infty = \frac{a}{1-r}$

$S\infty?$ $a = 1$ $r = \frac{1}{3}$

$S\infty = \frac{1}{1 - \frac{1}{3}}$

$S\infty = \frac{1}{\frac{2}{3}}$

$S\infty = 1\frac{1}{2}$

g) $\sqrt{x-8} = (\overline{\;\;\;\;\;}\;)^2 \; (x-8)^{-2}$

$x > 0$