

put $x = 1.051$ and $y = 1.344$ into eqn ② we get

$$z = \frac{1}{2g} [71 - 3(1.051) - 8(1.344)] = 1.962$$

4th approximation

put $y = 1.344$ and $z = 1.969$ into eqn ③

$$x = \frac{1}{83} [95 - 11(1.344) + 4(1.969)]$$

$$\boxed{x = 1.051}$$

put $x = 1.051$ and $z = 1.969$ into eqn ② we get

$$y = \frac{1}{2552} [104 - 7(1.051) - 13(1.969)]$$

$$\boxed{y = 1.344}$$

put $x = 1.051$ $y = 1.344$ into eqn ③
we get

$$z = \frac{1}{2g} [71 - 3(1.051) - 8(1.344)]$$

$$\boxed{z = 1.969}$$

Then required approximate sol upto 3 decimal places $x = 1.051$, $y = 1.344$ & $z = 1.969$ Ans