

NTS GAT General Past Papers Questions

Quantitative – Exam No. 14

Heads and Feet

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Formulas:

$$x = \frac{f - 2h}{2}$$

$$y = \frac{4h - f}{2}$$

Where:

x = Animal having 4 feet

y = Animal having 2 feet

h = Number of heads

f = Number of feet

Exercise:

1. There are rabbits and chickens in the farm. There are 65 heads and 226 feet.
How many chickens are there?

Solution:

$$y = \frac{4h - f}{2}$$

$$y = \frac{4(65) - 226}{2}$$

$$y = \frac{260 - 226}{2}$$

$$y = \frac{34}{2}$$

$$y = 17$$

2. There are sheep and hens in the farm. There are 8 heads and number of legs are 6 more than twice the number of heads. How many sheep are there? (PP)

Solution:

$$\begin{aligned}x &= \frac{f - 2h}{2} \\x &= \frac{22 - 2(8)}{2} \\x &= \frac{22 - 16}{2} \\x &= \frac{6}{2} \\x &= 3\end{aligned}$$

3. There are cows and men in the farm. There are 30 heads and number of legs are 10 more than thrice the number of heads. How many men are there? (PP)

Solution:

$$\begin{aligned}y &= \frac{4h - f}{2} \\y &= \frac{4(30) - 100}{2} \\y &= \frac{120 - 100}{2} \\y &= \frac{20}{2} \\y &= 10\end{aligned}$$

4. There are wolves and chickens in the farm. There are 177 heads and 400 feet. How many wolves are there?

Solution:

$$x = \frac{f - 2h}{2}$$

$$x = \frac{400 - 2(177)}{2}$$

$$x = \frac{400 - 354}{2}$$

$$x = \frac{46}{2} = 23$$