Baseline Assessment for Measurement

A school needs to determine how many workers it needs to host a carnival with 15 different rides and an estimated attendance of 3 250 people.

1. Determine how many workers are needed per day. Use the formula:

$$\textbf{\textit{Workers per day}} = \textbf{\textit{number of rides}} \times 2 + \frac{\textbf{\textit{estimated number of attendees}}}{8}$$

The workers need to wipe down the rides with, on average, 5ℓ of disinfectant per ride.

2. Determine how many bottles of disinfectant will be needed, if they are sold in 12ℓ tins.

Answers

1. $\textit{Workers per day} = \textit{number of rides} \times 2 + \frac{\textit{estimated number of attendees}}{8}$

$= 15 \times 2 + \frac{3\,250}{8}$ — Substitution

$= 30 + 406{,}25$ — Operations on numbers & calculator skills

$= 436{,}25$ workers

≈ 437 workers — Rounding up

2. Total disinfectant $= 5\ell \times 15$ rides — Rates

$= 75\ell$

Number of bottles $= 75\ell \div 12\ell$ bottles — Operations on numbers & calculator skills

$= 6{,}25$ bottles

≈ 7 bottles — Rounding up