

Interpret restrictions in familiar tables and signs

The sign on a rollerblading rink says:

Fees:

\$8 per rider for first hour and \$5 per rider after that.

Rollerblade Hire - \$4 fixed rate

Closing Time: 10 pm sharp

No pro-rata rates

‘No pro-rata rates’ means that you have to pay for a whole hour even if you only stay for a part of it.

1. Desmond rode for two hours and hired rollerblades. How much did it cost him?

Cost of riding: $\$8 + \$5 = \$13$
 Cost of rollerblades: $= \$4$
 Total Cost $= \$17$ It cost Desmond \$17.

2. A group of 4 friends spent 3 hours at the rink and two of the friends needed to hire rollerblades. How much did it cost them altogether?

Cost of riding: $4 \times (\$8 + \$5 + \$5) = 4 \times \$18 = \$72$
 Cost of rollerblades: $2 \times \$4 = \8
 Total Cost: $\$80$

3. Justin was delayed and didn't start rollerblading until 8.30 pm. He stayed until closing time. Given that he had his own rollerblades, how much did it cost him?

Justin will be rollerblading for $\$1 \frac{1}{2}$ hours but will have to pay for 2 hours because of the no pro-rata rule.
 Total Cost: $\$8 + \$5 = \$13$.

4. Suzan can buy a pair of new rollerblades for \$250. How many times could she hired rollerblades before buying new rollerblades becomes cheaper?

$\$250 \div 4 = 62.5$. After 62 visits it is cheaper to buy rollerblades.