

Comparing Rates

How can you use unit rates to compare?

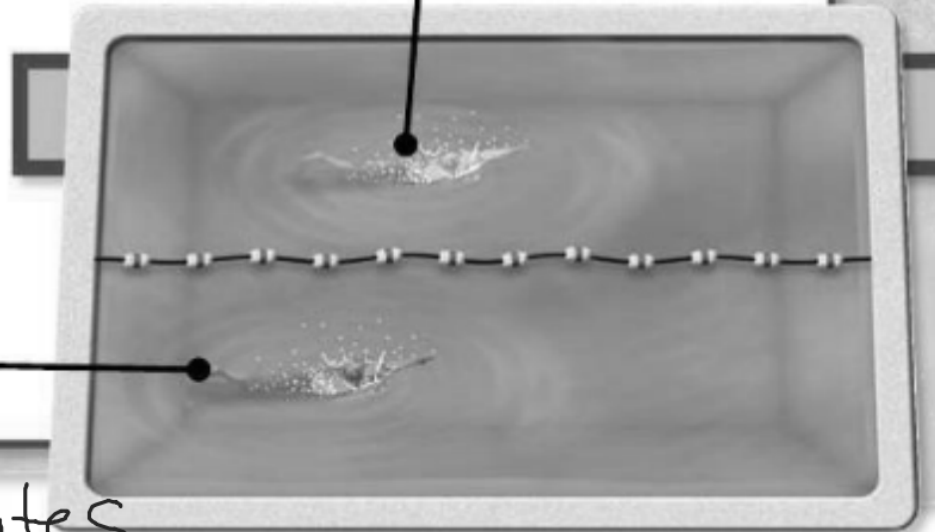
Ethan swam 11 laps in the pool in 8 minutes. Austin swam 7 laps in the same pool in 5 minutes.

Which boy swam at a faster rate?

Find the unit rates to compare who swam faster.

Ethan $\frac{11 \text{ laps}}{8 \text{ min}}$

$\frac{7 \text{ laps}}{5 \text{ min}}$ Austin



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So Ethan $\frac{11 \text{ laps}}{8 \text{ min.} : 8} = \frac{1.375 \text{ laps}}{1 \text{ min.}}$

Austin $\frac{7 \text{ laps}}{5 \text{ min.}} = \frac{1.4 \text{ laps}}{1 \text{ min.}}$

Austin swam faster

Ethan	1.375
Austin	1.400
compare	

Find each unit rate and determine which rate is greater.

1. 51 hits on Jon's website in 3 h or 96 hits on Shana's website in 6 h

$$\text{Jon: } \frac{51 \text{ hits}}{3 \text{ hr}} = \frac{17 \text{ hits}}{1 \text{ hr}}$$

Jon's rate is greater.

$$\text{Shana: } \frac{96 \text{ hits}}{6 \text{ hr}} = \frac{16 \text{ hits}}{1 \text{ hr}}$$

To compare rates,

1 → find the rates

2 → change each rate to a unit rate.

3 → compare the unit rates.