❖ **Example 2: Finding An Average Speed**

2. A skater took 2 minutes 30 seconds to complete a 1500 meter race.

➢ What was the skater's average speed?

Hint: Convert minutes to seconds...

average speed = $\frac{\text{distance}}{\text{time}}$

2 minutes and 30 seconds = 150 seconds

120 + 30

1500 meters in 150 seconds = $\frac{1500\text{ m}}{150\text{ sec}}$ → $\frac{1500\text{ m} \div 150}{150\text{ sec} \div 150} \rightarrow \frac{10\text{ m}}{1\text{ sec}}$

$= \boxed{\frac{10\text{ m}}{1\text{ sec}}}$

❖ **Example 3: Comparing Unit Rates**

3. A store sells the same pasta the following two ways: 10 pounds of bulk pasta for $15.00 and 2 pounds of packaged pasta for $3.98. To determine which is the better buy, find the unit price for both types.

10 pounds for $15.00 = $\frac{\$15 \div 10}{10\text{ lbs} \div 10} \rightarrow \frac{\$1.5}{1\text{ lb}}$ ← doesn't look like $...

$1.50/lb

2 pounds for $3.98 = $\frac{\$3.98 \div 2}{2\text{ lb} \div 2} \rightarrow \frac{\$1.99}{1\text{ lb}}$ → $\boxed{\frac{\$1.99}{1\text{ lb}}}$

* How much per pound?

* If you were shopping, which one is the better buy? The cheapest!

YOUR TURN:

60 + 40 = 100 sec

1. It takes you 1 minute 40 seconds to walk 550 feet. What is your average speed?

av. sp. = $\frac{d}{t} = \frac{550\text{ ft} \div 100}{100\text{ sec} \div 100} \rightarrow \frac{5.5\text{ ft}}{1\text{ sec}}$ → $\boxed{5.5\text{ ft/sec}}$ or $\boxed{5\frac{1}{2}\text{ ft/sec}}$

2. Which of the following is the better buy: 2 AA batteries for $1.50 or 6 AA batteries for $4.80?

$\frac{\$1.50 \div 2}{2\text{ batt.} \div 2} \rightarrow \boxed{\frac{\$0.75}{1\text{ batt.}}}$

$\frac{\$4.80 \div 6}{6\text{ batt.} \div 6} \rightarrow \boxed{\frac{\$0.80}{1\text{ batt.}}}$

* The better buy is the 6 AA batts for $4.80