# You will probably want your 

 calculator today :Section 4.1 Page 77

What is the formula for speed?

$$
\mathrm{s}=\mathrm{d} / \mathrm{t}
$$

Distance?

$$
d=s x t
$$

Time?
$t=d / s$

- Write the equation only
- It takes a baby ___ minutes to crawl meters from her crib to the door. How fast is the baby going?

$$
s=d / t
$$

- It takes a baby 2 minutes to crawl 8 meters from her crib to the door. How fast was the baby going?

$$
s=d / t
$$<br>$$
\mathrm{s}=8 \mathrm{~m} / 2 \mathrm{~min}
$$<br>$$
\mathrm{s}=4 \mathrm{~m} / \mathrm{min}
$$



■ Write the equation only!

- A bird flies at a rate of __ m/s. It continues to fly at that rate for seconds. How far did the bird fly?

$$
d=s \times t
$$



- A bird flies at a rate of $4 \mathrm{~m} / \mathrm{s}$. It continues to fly at that rate for 2 seconds. How far did the bird fly?

$$
d=s x t
$$

$$
x+1
$$

$$
\mathrm{d}=4 \mathrm{~m} / \mathrm{s} \times 2 \mathrm{sec} .
$$

$$
d=8 \mathrm{~m}
$$

$\square$ Write the equation.

- A ball is rolling down a __m hill. It travels at a speed of ___ m/s. How long does it take for the ball to get to the end of the hill?

$$
\mathrm{t}=\mathrm{d} / \mathrm{s}
$$



- A ball is rolling down a 30 m hill. It travels at a speed of $2 \mathrm{~m} / \mathrm{s}$. How long does it take for the ball to get to the end of the hill?

$$
\mathrm{t}=\mathrm{d} / \mathrm{s}
$$

$\mathrm{t}=30 \mathrm{~m} / 2 \mathrm{~m} / \mathrm{s}$
$t=15 \mathrm{~s}$


## - Write the equation!

■ How far would a stingray swim if it swam at a rate of ___ $\mathrm{m} / \mathrm{sec}$ for ____seconds?

$$
d=s \times t
$$



- How far would a stingray swim if it swam at a rate of $6 \mathrm{~m} / \mathrm{sec}$ for 60 seconds?
$d=s x t$
$\mathrm{d}=6 \mathrm{~m} / \mathrm{sec} \times 60 \mathrm{sec}$
$d=360 \mathrm{~m}$

- Write the equation
- An ant crawls for ___ cm from its nest to a tree. It travels at a speed of ___ cm/s. How long does it take the ant to get to the tree?

$$
\mathrm{t}=\mathrm{d} / \mathrm{s}
$$

- An ant crawls for 14 cm from its nest to a tree. It travels at a speed of $2 \mathrm{~cm} / \mathrm{s}$. How long does it take the ant to get to the tree? $t=d / s$
$\mathrm{t}=14 \mathrm{~cm} / 2 \mathrm{~cm} / \mathrm{s}$
$\mathrm{t}=7 \mathrm{sec}$
- Write the equation!
- If a man ran at the rate of __ m/s for seconds, how far would he have run?

$$
d=s x t
$$



- If a man ran at the rate of $5 \mathrm{~m} / \mathrm{s}$ for 180 seconds, how far would he have run?

$$
\begin{aligned}
& d=s \times t \\
& d=5 \mathrm{~m} / \mathrm{s} \times 180 \mathrm{sec} \\
& d=900 \mathrm{~m}
\end{aligned}
$$



## Procedure

1. Decide how you and your partner will be moving. You can walk, run, skip, or move in any other way you choose.
2. Go to the starting line and move along the length of your path. Your partner will start the timer once you start moving. Your partner should record the time every 3 meters in Data Table 1. For example, at the origin time is zero. At the 3-meter mark the time might be 6 seconds, at the 6 -meter mark the time might be 12 seconds and so on.
3. Switch roles and repeat the activity with the other person moving. Record the data in Data Table 2.
4. Make a position vs. time graph to show each person's motion. Put both sets of data on the same graph. It might be helpful to use two different colors to plot the points.
Data Table 1.

| Position (m) | Time (s) |
| :--- | :--- |
| 0 | 0 |
| 3 |  |
| 6 |  |
| 9 |  |
| 12 |  |
| 15 |  |
| 18 |  |

Data Table 2.

| Position $(\mathrm{m})$ | Time $(\mathrm{s})$ |
| :--- | :--- |
| 0 | 0 |
| 3 |  |
| 6 |  |
| 9 |  |
| 12 |  |
| 15 |  |
| 18 |  |

