## SPEED

## APPLICATIONS <br> RUNNING PERFORMANCE



Q1. The table below shows the average running speed (in metres per second) and length of running stride of 3 people.

| Name | Speed | Running Stride |
| :---: | :---: | :---: |
| Donna | $6.8 \mathrm{~m} / \mathrm{s}$ | 1.4 m |
| Sarah | $7.3 \mathrm{~m} / \mathrm{s}$ | 1.7 m |
| Jacqui | $5.9 \mathrm{~m} / \mathrm{s}$ | 1.2 m |

(a) How many strides would Donna need to complete the race over 100 metres?
(b) How many seconds would Sarah need to complete a race over 200 metres?
(c) How many strides would Jacqui have taken for 800 metres?


Q2. Chris can run the 100 m sprint in 12.3 seconds and Matt can run 200 m in 25.7 s .
(a) If Chris could maintain the same speed from the 100 m race for the 200 m race, what time would he have clocked? (b) What would be the difference in time between Chris and Matt for the 200 metres?

Q3. Complete the table of speeds of athletes in a 100 metres race.

| Lane | Name | Time | Speed (m/s) |
| :---: | :---: | :---: | :---: |
| 1 | Petra | 13.53 s |  |
| 2 | Teri | 12.37 s |  |
| 3 | Diane | 12.18 s |  |
| 4 | Michelle | 12.10 s |  |
| 5 | Robyn | 12.95 s |  |
| 6 | Colleen | 13.24 s |  |

## ANSWERS

Q1. (a) 72
(b) 27.4 s
(c) 667

Q2. (a) 24.6 s
(b) 1.1 s

Q3.
Petra 7.4
Teri 8.1
Diane 8.2
Michelle 9.9
Robyn 7.7
Colleen 7.6

