

# Faster than light

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This task is about converting between ordinary numbers to standard form.



The speed of light is about  $3 \times 10^8$  m/s (metres per second). The starship Venus can travel at warp speeds that are faster than the speed of light. Warp speed is the number of times faster than the speed of light Venus is travelling. At warp speed 2, Venus is travelling at two times the speed of light. This is  $6 \times 10^8$  m/s in standard form.

a) Write the warp speed for the following

- i)  $9 \times 10^8$  m/s. Warp speed \_\_\_\_\_
- ii)  $1.8 \times 10^9$  m/s. Warp speed \_\_\_\_\_
- iii)  $3 \times 10^9$  m/s. Warp speed \_\_\_\_\_

b) Write each of these speeds in **standard form**.

- i) Warp speed 8. \_\_\_\_\_ m/s
- ii) Warp speed 40. \_\_\_\_\_ m/s
- iii) Warp speed 100. \_\_\_\_\_ m/s