### 6.1 Key Concepts 4 Graphs of Direct Variation Worked Example

Example: Find an equation to model the variation shown.
Solution: Check that the variation is direct by calculating the ratio $\frac{y}{x}$ for each entry. This turns out to be 2.5 in each case.

| $\boldsymbol{x}$ | $\boldsymbol{y}$ |
| :---: | :---: |
| 2 | 5.0 |
| 5 | 12.5 |
| 11 | 27.5 |
| 20 | 50.0 | The equation is $\mathrm{y}=2.5 \mathrm{x}$.

## Practice:

1. Find an equation to model the variation shown.

| $\boldsymbol{x}$ | $\boldsymbol{y}$ |
| :---: | :---: |
| 1 | 1.2 |
| 3 | 3.6 |
| 7 | 8.4 |
| 10 | 12.0 |

2. Find an equation to model the variation shown.

| $\boldsymbol{x}$ | $\boldsymbol{y}$ |
| :---: | :---: |
| 3 | 2.1 |
| 9 | 6.3 |
| 15 | 10.5 |
| 23 | 16.1 |

Answers: 1. $y=1.2 x .2 . y=0.7 x$.

