Rates of change

Find the speed of a train travelling for 100 miles and taking 2 hours.

$S = \frac{100}{2} = 50\text{mph}$ $\frac{1}{4} = 0.25$

Find the speed of a train travelling for 100 miles and taking 2 and a quarter hours.

$\frac{15}{60} = 0.25$ $S = \frac{100}{2.25} = 44.4\text{mph}$

Find the speed of a train travelling for 100 miles and taking 2 hours 10 minutes.

$\frac{10}{60} = 0.16$

$S = \frac{100}{2.16} = 46.3\text{mph}$

page 54
A1 a,d,g
A2-A4

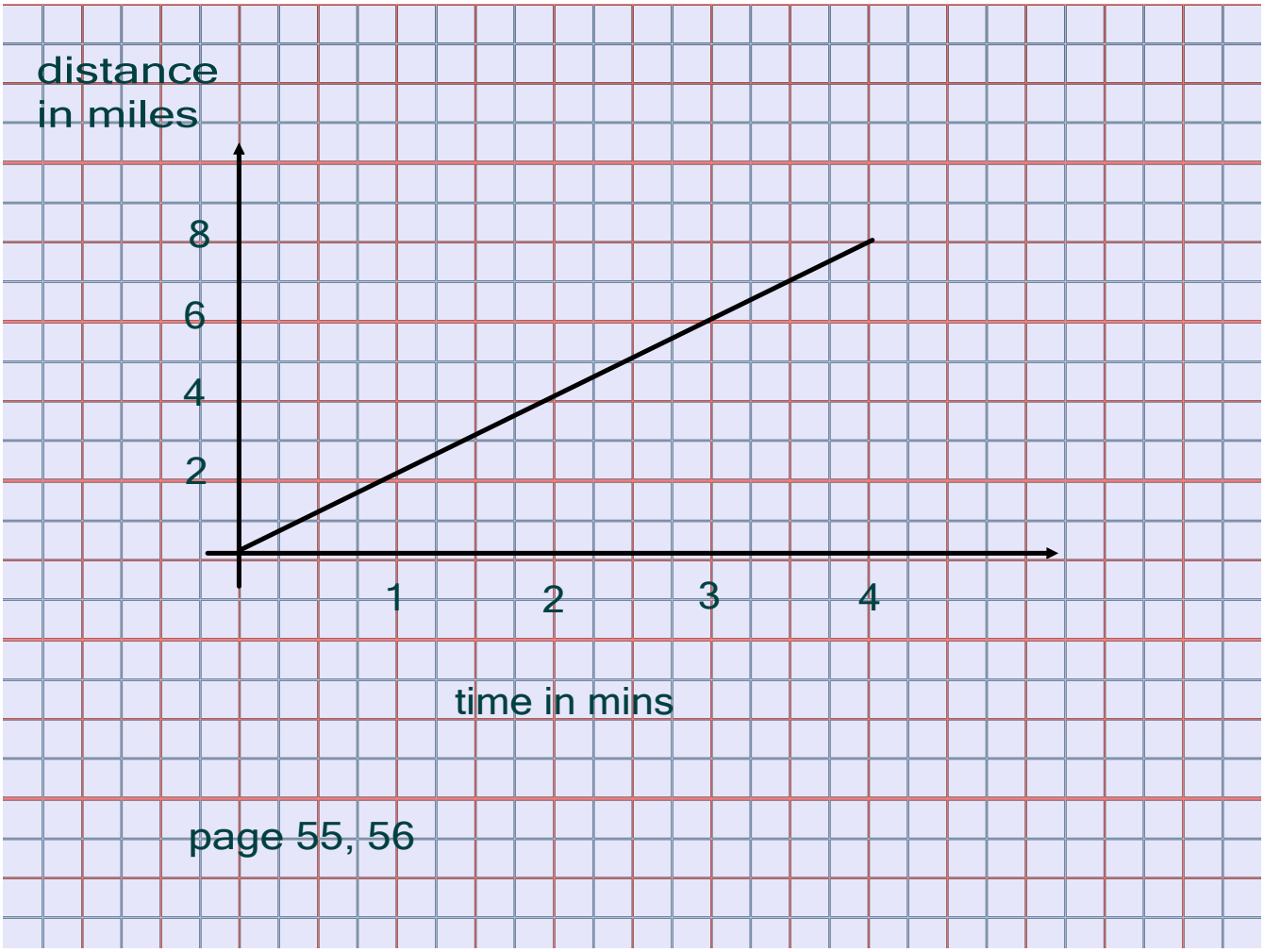
Work out the speed of a cyclist who travels 35 miles in 3 hours and 12 minutes.

$\frac{12}{60} = 0.2$

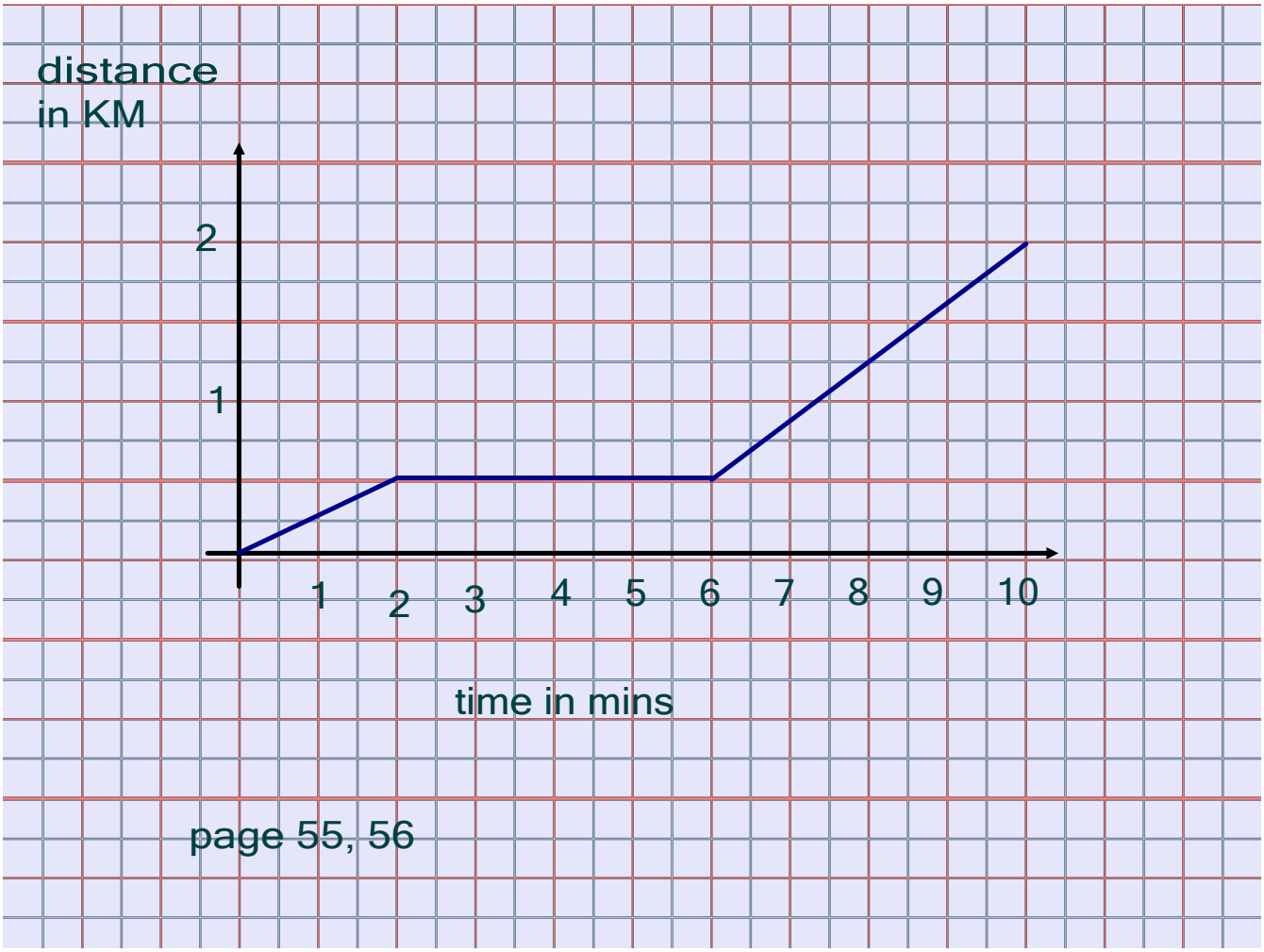
$S_p = \frac{35}{3.2} = 10.9 \text{ mph}$

m/h m÷h

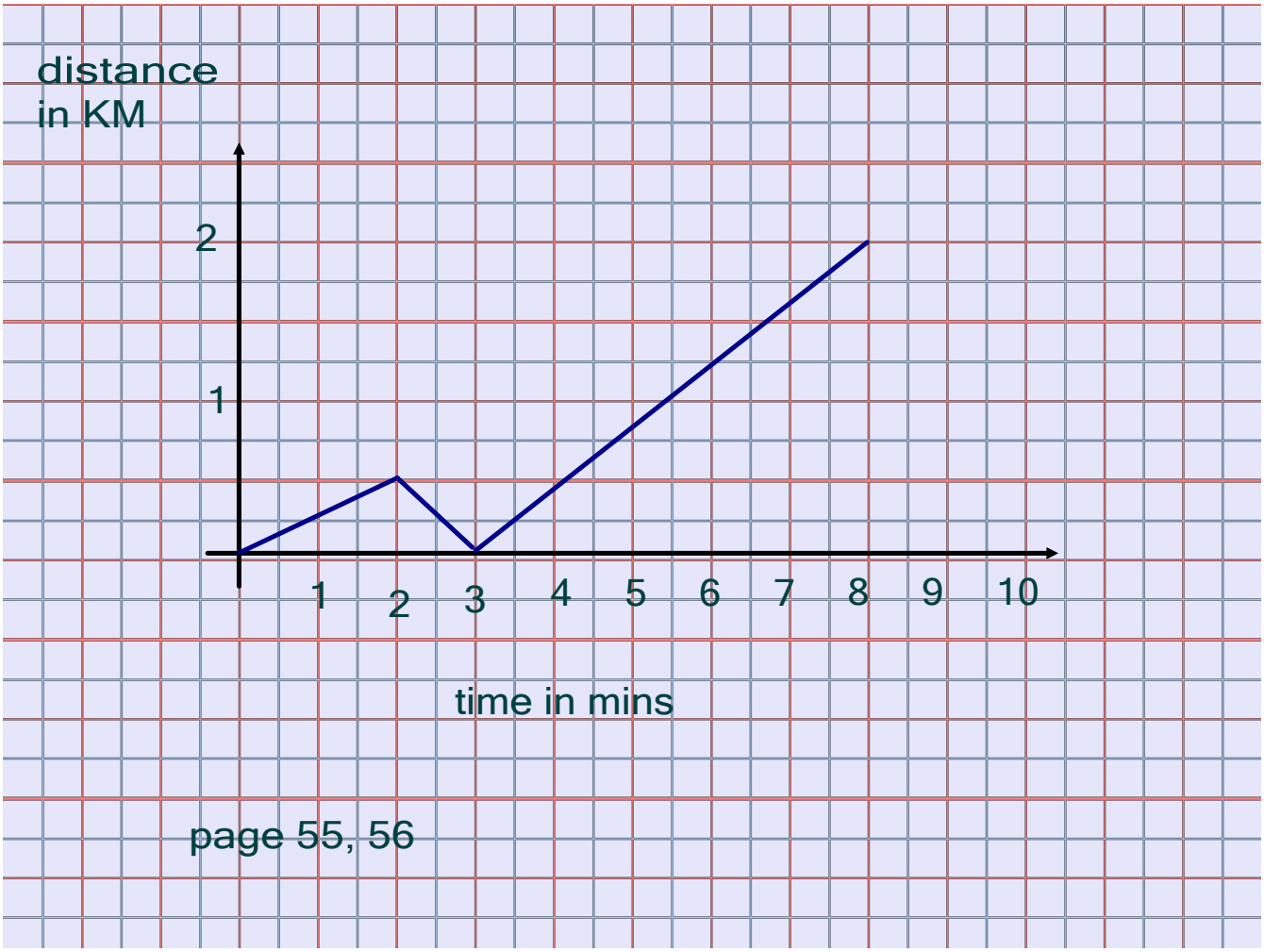
page 54
A1 a,d,g
A2-A4



page 55, 56



page 55, 56



page 55, 56


Find the speed of a tortoise, in metres per hour, if it travels 8cm in 7 minutes.

More rates of change

Our photocopier can do about 30 copies in 40 seconds.
Find the rate of copies per minute.

Another photocopier can do about 58 copies in 75 seconds.
Find the rate of copies per minute.

The best copiers seem to do about 156 copies per minute. How long would it take me to copy a set of worksheets for you (28)?

page 59