# Calculating Distance, Speed and Time

## Outcome 1 – Simple Time Intervals

**Examples...**

How long is it from?

4·30 pm to 9·30 pm = 5 hours

10·45 am to 8·45 pm = 10 hours

0615 to 1515 = 9 hours

### Questions...

Calculate how long is it from...

1. 8·40 am to 11·40 am
2. 6·20 pm to 9·20 pm
3. 1·50 pm to 10·50 pm
4. 2·30 am to 5·30 pm
5. 4·25 am to 1·25 pm
6. 1845 to 2245
7. 0755 to 0855
8. 1315 to 1715
9. 0440 to 1640
10. 2235 to 0035

## Outcome 2 – Calculating Distance

**Examples...**

S T

Distance = Speed × Time

How far did a boy walk in 4 hours at an average speed of 6 km/hr?

Distance = 6 × 4 = 24 kilometres

### Questions...

Calculate the following distances...

1. S = 8 m.p.h. T = 2 hours D = ?
2. S = 9 km/hr T = 4 hours D = ?
3. S = 10 m/sec T = 7 seconds D = ?
4. S = 6 km/hr T = 5 hours D = ?
5. S = 3 m.p.h. T = 7 hours D = ?
6. S = 11 m.p.h. T = 5 hours D = ?
7. S = 8 m/sec T = 9 seconds D = ?
8. S = 7 m.p.h. T = 7 hours D = ?
9. S = 12 m.p.h. T = 6 hours D = ?
10. S = 12 km/hr T = 12 hours D = ?

## Outcome 3 – Calculating Speed

**Examples...**

D T

Speed = Distance ÷ Time

A cyclist travelled 54 miles in 6 hours. What was his speed?

Speed = 54 ÷ 6 = 9 m.p.h.

### Questions...

Calculate the following speeds...

1. D = 18 miles T = 2 hours S = ?
2. D = 64 kilometres T = 8 hours S = ?
3. D = 90 metres T = 9 seconds S = ?
4. D = 32 kilometres T = 4 hours S = ?
5. D = 42 miles T = 7 hours S = ?
6. T = 5 hours D = 45 miles S = ?
7. D = 81 metres T = 9 seconds S = ?
8. T = 3 hours D = 24 miles S = ?
9. D = 56 miles T = 8 hours S = ?
10. T = 11 hours D = 132 miles S = ?

## Outcome 4 – Calculating Time

**Examples...**

D S

Time = Distance ÷ Speed

How long did a scooter take to travel 18 miles at an average speed of 6 m.p.h.?

Time = 18 ÷ 6 = 3 hours

### Questions...

Calculate the following times...

1. D = 14 miles S = 7 m.p.h. T = ?
2. D = 36 kilometres S = 6 km/hr T = ?
3. D = 20 metres S = 5 m/sec T = ?
4. D = 48 kilometres S = 8 km/hr T = ?
5. D = 55 miles S = 11 m.p.h. T = ?
6. S = 3 m.p.h. D = 21 miles T = ?
7. D = 54 metres S = 6 m/sec T = ?
8. S = 5 m.p.h. D = 25 miles T = ?
9. D = 72 miles S = 9 m.p.h. T = ?
10. S = 12 m.p.h. D = 108 miles T = ?

## Outcome 1 Answers

| | | | |
|---|---|---|---|
| 1. | 3 hours | 2. | 3 hours |
| 3. | 9 hours | 4. | 15 hours |
| 5. | 9 hours | 6. | 4 hours |
| 7. | 1 hour | 8. | 4 hours |
| 9. | 12 hours | 10. | 2 hours |

## Outcome 2 Answers

| | | | |
|---|---|---|---|
| 1. | 16 miles | 2. | 36 kilometres |
| 3. | 70 metres | 4. | 30 kilometres |
| 5. | 21 miles | 6. | 55 miles |
| 7. | 72 metres | 8. | 49 miles |
| 9. | 72 miles | 10. | 144 kilometres |

## Outcome 3 Answers

| | | | |
|---|---|---|---|
| 1. | 9 m.p.h. | 2. | 8 km/hr |
| 3. | 10 m/sec | 4. | 8 km/hr |
| 5. | 6 m.p.h. | 6. | 9 m.p.h. |
| 7. | 9 m/sec | 8. | 8 m.p.h. |
| 9. | 7 m.p.h. | 10. | 12 m.p.h. |

## Outcome 4 Answers

| | | | |
|---|---|---|---|
| 1. | 2 hours | 2. | 6 hours |
| 3. | 4 seconds | 4. | 6 hours |
| 5. | 5 hours | 6. | 7 hours |
| 7. | 9 seconds | 8. | 5 hours |
| 9. | 8 hours | 10. | 9 hours |