| | 1 h 45 min | B1 | | |
|---|---------------------|----|--|--|
| 1 | Additional Guidance | | | |
| | | | | |

| | Alternative method 1 | | | |
|---|--|-------|---|--|
| | 110 ÷ 2 or 55 or 2 ÷ 110 or 0.018(1) or 0.0182 or 44 ÷ 110 or 0.4 or 110 ÷ 44 or 2.5 | M1 | 06 | |
| 2 | 44 ÷ (110 ÷ 2) or 0.8 or $\frac{4}{5}$ | M1dep | oe eg 2880 or calculation that would evaluate to 0.8 eg $2 \div 110 \times 44$ or $44 \div 110 \times 2$ or $2 \div (110 \div 44)$ or $\frac{110 + 44}{110 \div 2} - 2 \text{ or } 2.8 - 2$ | |
| | 48 | A1 | | |
| | Alternative method 2 | | | |
| | 110 ÷ 2 ÷ 60 or 0.916 or 0.917 or 0.92 or 2 × 60 ÷ 110 or 1.09(0) or 1.091 | M1 | oe | |
| | 44 ÷ (110 ÷ 2 ÷ 60) | M1dep | oe calculation that would evaluate to 48 eg 44 × 2 × 60 ÷ 110 | |
| | 48 | A1 | | |

| | Additional Guidance | |
|--------|---|------|
| | Ignore units for M marks eg 55 miles | M1 |
| | Do not award A1 if premature approximation for 48 seen | |
| | eg | |
| | (Alt 1) 0.018 × 44 = 0.8 Answer 48 | M2A1 |
| | (Alt 1) 0.018 × 44 = 0.792 and 0.792 × 60 = 47.52 Answer 48 | M2A0 |
| | (Alt 2) 44 ÷ 0.917 = 48 | M2A1 |
| 2 cont | (Alt 2) 44 ÷ 0.917 = 47.9 Answer 48 | M2A0 |
| | (Alt 2) 44 × 1.09 = 48 | M2A1 |
| | (Alt 2) 44 × 1.09 = 47.96 Answer 48 | M2A0 |
| | 48 followed by answer 2 h 48 min | M2A0 |
| | 48 followed by answer 168 min | M2A0 |
| | Allow M1 even if not subsequently used | |
| | Alt 1 Working in seconds leading to 2880 | M2 |

| Q | Answer | Mark | Comments | |
|------|---|------|---|------------|
| 3(a) | 20 + 40 or 60 or 90 or 1 (h) + 1 (h) + 30 (m) or 150 or 2(h) 30 (m) 2 \frac{1}{2} \text{ or 2.5} | M1 | oe answer in hours eg two SC1 2.3(0) | and a half |
| | Additional Guidance | | | |
| | Ignore rounding attempt to 2 or 3 after correct answer seen eg 2.5 in working with answer 2 | | | M1A1 |
| | 2 h 30 min in working with answer 2 | | | M1A0 |
| | 1.9(0) | | M0 | |

| Alternative method 1 Works in min or hrs for 9 episodes and 1 epi | | | | |
|---|---|----|--|-------|
| | 9×50 or 450 or $9 \times \frac{50}{60}$ or $\frac{450}{60}$ | M1 | oe eg $9 \times \frac{5}{6}$ or $\frac{45}{6}$ or $\frac{15}{2}$ or | r 7.5 |
| | 60 + 42 or 102 or $\frac{102}{60}$ oe fraction or 1.7 | M1 | 552 or 9.2 implies M1M1 | |
| | 9 hours 12 minutes | A1 | SC2 9h 32min or 6h 32min or 9h 20min | |
| | Alternative method 2 Works in min or hrs for 9 episodes and converts to hrs and min | | | |
| 4(a) | 9×50 or 450 or $9 \times \frac{50}{60}$ or $\frac{450}{60}$ | M1 | oe $eg \ 9 \times \frac{5}{6} or \frac{45}{6} or \frac{15}{2} or 7.5$ implied by 7 h 30 min | |
| | 7 h 30 min | M1 | ft conversion of their 450 to hours and minutes if their 450 > 60 or their $\frac{450}{60}$ to hours and minutes if their $\frac{450}{60}$ > 1 | |
| | 9 hours 12 minutes | A1 | SC2 9h 32min or 6h 32min or 9h 20min | |
| | Additional Guidance | | | |
| | 7 h 50 min + 1 h 42 min = 9 h 32 min | | | SC2 |
| | 4 h 50 min + 1 h 42 min = 6 h 32 min | | | SC2 |
| | 9.2 h = 9 h 20 min | | | SC2 |

| Q | Answer | Mark | Comments |
|---|--------|------|----------|
| 5 | 65 min | B1 | |