Answers - Time and money

Year: Year 4

Answer to Question 1

a. 7:15 is "quarter past seven". As a morning time it is **07:15** on the 24-hour clock.
b. 3:40 is "twenty to four". In the afternoon this is 15:40 on the 24-hour clock: **15:40**.
c. 9:05 is "five past nine". In the evening this is 21:05: **21:05**.
d. 12:50 is "ten to one". In the afternoon this is **12:50** (it is still 12 on the 24-hour clock, because 12:50 pm is just before 1 pm).

Answer to Question 2

a. 6 + 12 = 18, so **18:20**.
b. 11 + 12 = 23, so **23:05**.
c. Midnight is **00:00**.
d. 17 − 12 = 5, so **5:45 pm**.
e. 20 − 12 = 8, so **8:15 pm**.
f. 00:35 is 35 minutes after midnight, so **12:35 am**.

Answer to Question 3

a. 4 × 60 = **240 seconds**.
b. 3 × 60 = **180 minutes**.
c. 240 ÷ 60 = **4 minutes**.
d. 5 × 7 = **35 days**.
e. 2 × 12 = **24 months**.
f. 135 ÷ 60 = 2 remainder 15, so **2 hours 15 minutes**.

Answer to Question 4

a. From 09:20 to 11:05: 1 h 45 min. Check: 105 min.
b. From 13:45 to 15:10: 1 h 25 min. Check: 85 min.
c. From 10:50 to 12:30: 1 h 40 min. Check: 100 min.
d. From 16:15 to 18:00: 1 h 45 min. Check: 105 min.

Answer to Question 5

a. £2.45 + £3.20: pence 45 + 20 = 65; pounds 2 + 3 = 5. Total **£5.65**.

b. £5.60 + £1.85: pence 60 + 85 = 145 = £1.45; pounds 5 + 1 = 6, plus the £1 from the pence gives 7. Total **£7.45**.
c. £12.75 + £6.50: pence 75 + 50 = 125 = £1.25; pounds 12 + 6 = 18, plus 1 = 19. Total **£19.25**.
d. £0.95 + £2.30 + £1.45: 95 + 230 + 145 = 470 pence = **£4.70**.

Answer to Question 6

a. £3.65 + 35p = £4.00, then + £1 = £5.00. Change **£1.35**.
b. £6.40 + 60p = £7.00, then + £3 = £10.00. Change **£3.60**.
c. £13.75 + 25p = £14.00, then + £6 = £20.00. Change **£6.25**.
d. £8.99 + 1p = £9.00, then + £1 = £10.00. Change **£1.01**.

Answer to Question 7

a. 08:15 to 09:00 is 45 minutes and 09:00 to 09:10 is 10 minutes, so 45 + 10 = **55 minutes**.
b. Bus 2 leaves the library at 09:52, which is the first bus after 09:45. She waits **7 minutes**.
c. From 11:22 to 12:00: 38 minutes (11:22 to 12:00 is 38 min). **38 minutes**.
d. Bus 1: 55 min; Bus 2: 09:35 to 10:30 is 55 min; Bus 3: 11:05 to 12:00 is 55 min. **Yes**, all take 55 minutes.

Answer to Question 8

a. 17:30 to 18:15 is **45 minutes**.
b. 18:30 to 19:45 is **1 hour 15 minutes**.
c. 19:45 to 21:35: 15 min to 20:00, then 1 h to 21:00 and 35 min: 15 + 60 + 35 = 110 min = **1 h 50 min = 110 minutes**.
d. 17:30 to 21:35: 30 min to 18:00, then 3 h to 21:00, then 35 min: 30 + 180 + 35 = 245 min = **4 hours 5 minutes**.

Answer to Question 9

a. 08:50 + 10 min = **09:00**.
b. 09:00 + 55 min = **09:55**.
c. 09:55 + 15 min = **10:10**.
d. 10:10 + 1 h = **11:10**. From 11:10 to 12:00 is **50 minutes** before lunch.

Answer to Question 10

a. £2.45 + £2.20 = **£4.65**.
b. £1.60 + £3.85 = **£5.45**.
c. £2.95 + £1.60 = £4.55. Change from £5: £5.00 − £4.55 = **£0.45** (45p).
d. £4.65 + £5.45 + £4.55 = **£14.65**.

Answer to Question 11

a. 2 × £7.50 = **£15.00**.
b. 3 × £2.25 = **£6.75** (3 × 225p = 675p).
c. £15.00 + £6.75 + £12.99 + £8.49 = **£43.23**.
d. She does not have enough: £43.23 is more than £40. She needs **£3.23** more.

Answer to Question 12

a. 09:52 to 10:00 is 8 minutes; 10:00 to 12:00 is 2 h; 12:00 to 12:17 is 17 minutes. 8 + 120 + 17 = 145 min = **2 hours 25 minutes**.
b. 12:17 + 8 min = **12:25**.
c. 2 × £42.50 = **£85.00**.
d. Half of £42.50 = **£21.25**. Total: £85.00 + £21.25 = **£106.25**.

Answer to Question 13

a. 4 × £3.50 = **£14.00**.
b. 4 × £1.20 = **£4.80**.
c. £14.00 − £4.80 = **£9.20**.
d. £11.50 ÷ £1.20 is a bit under 10: 9 weeks gives £10.80 and 10 weeks give £12.00. So he needs **10 weeks**.

Answer to Question 14

a. 16:15 + 45 min = **17:00**.
b. 8 × £6.50 = **£52.00**.
c. £52.00 − £5.00 = **£47.00**.
d. Next lessons are 7 days later: 4 + 7 = **11 November**, **18 November** and **25 November**.

Answer to Question 15

a. 09:15 + 1 h 50 min: 09:15 + 1 h = 10:15, plus 50 min = 11:05. **11:05**.
b. 11:05 + 4 h 25 min: 11:05 + 4 h = 15:05, plus 25 min = 15:30. The coach leaves

at **15:30**. It arrives back at 15:30 + 1 h 50 min = **17:20**.
c. Children: 28 × £5.50 = £154.00. Adults: 4 × £8.25 = £33.00. Total tickets: £154.00 + £33.00 = **£187.00**.
d. Adult tickets £33 plus coach £150 = £183. £183 ÷ 28 = 6 remainder 15, so about £6.54 each; each child pays **£6.54** (to the nearest penny).
e. The coach arrives back at 17:20, which is before 17:30, so it **is** back in time, with **10 minutes** to spare.

Answer to Question 16

a. 09:00 to 15:30 is **6 hours 30 minutes**.
b. Apples: 24 × £2.50 = £60.00. Pears: 18 × £3.00 = £54.00. Plums: 12 × £3.50 = £42.00.
c. £60.00 + £54.00 + £42.00 = **£156.00**.
d. £38.40 + £34.20 + £26.40 = **£99.00**. (Check: 24 × £1.60 = £38.40; 18 × £1.90 = £34.20; 12 × £2.20 = £26.40.)
e. £156.00 − £99.00 = **£57.00** profit.

Answer to Question 17

a. 8 × £36.50 = **£292.00** (8 × 3 650p = 29 200p).
b. 8 × £22.40 = **£179.20**.
c. £292.00 + £48.75 + £179.20 + £67.00 = **£586.95**.
d. 12 July + 8 days = **20 July**. Saturday + 8 days = Sunday (7 days later is Saturday, so 8 days later is Sunday). They come home on **Sunday 20 July**.
e. £700 − £586.95 = **£113.05** left.

Answer to Question 18

a. 18:40 + 15 min = **18:55**.
b. 18:55 + 1 h 52 min: 18:55 + 1 h = 19:55; + 52 min = 20:47. The film ends at **20:47**.
c. 4 × £6.75 = £27.00; £27.00 + £5.00 = **£32.00**.
d. £32.00 ÷ 4 = **£8.00** each (4 × £8.00 = £32.00).
e. 20:47 + 10 min = 20:57, which is before 21:10, so they **do** catch the bus, with 13 minutes to spare.

Answer to Question 19

a. 19:00 + 35 min = **19:35** and Part 2 starts after the interval at 19:35 + 20 min = **19:55**.
b. Part 2 ends at 19:55 + 40 min = 20:35. Part 3 ends at 20:35 + 25 min = **21:00**.

c. 85 × £3.50 = **£297.50** (85 × 350p = 29 750p).
d. 120 × £2 = **£240.00**. Total: £297.50 + £240.00 = **£537.50**.
e. £537.50 − £175.00 = **£362.50**.

Answer to Question 20

a. Count the number of 50p coins first (0, 1 or 2), then the 20p coins, then fill with 10p coins. The ways are: **0 × 50p + 0 × 20p + 10 × 10p**; **0 × 50p + 1 × 20p + 8 × 10p**; **0 × 50p + 2 × 20p + 6 × 10p**; **0 × 50p + 3 × 20p + 4 × 10p**; **× 50p + 4 × 20p + 2 × 10p**; **0 × 50p + 5 × 20p + 0 × 10p**; **1 × 50p + 0 × 20p + 5 × 10p**; **1 × 50p + 1 × 20p + 3 × 10p**; **1 × 50p + 2 × 20p + 1 × 10p**; **2 × 50p + 0 × 20p + 0 × 10p**. There are **10 ways**.
b. Fewest coins: 2 × 50p, which is **2 coins**.
c. Most coins: 10 × 10p, which is **10 coins** (100p ÷ 10p = 10).