Answers - Time: telling the time and durations

Year: Year 3

Answer to Question 1

a. The minute hand points to 12, so it is exactly on the hour. The hour hand points to 2: the time is **2:00**, two o'clock.
b. The minute hand points to 6, which is 30 minutes. The hour hand is halfway between 5 and 6: **5:30**, half past five.
c. The minute hand points to 3, which is 15 minutes. The hour hand is just past 9: **9:15**, quarter past nine.
d. The minute hand points to 9, which is 45 minutes. The hour hand is nearly at 12, so it is still 11 hours: **11:45**, quarter to twelve.

Answer to Question 2

a. **7**: V + I + I = 5 + 2.
b. **9**: X − I = 10 − 1.
c. **11**: X + I = 10 + 1.
d. **IV**: V − I = 5 − 1.
e. **XII**: X + I + I = 10 + 2.

Answer to Question 3

a. p.m. times after 1 o'clock add 12 to the hour: 3 + 12 = 15, so 3:30 p.m. is **15:30**.
b. a.m. times keep the same hour, with a zero in front to make 4 digits: **09:15**.
c. 8 + 12 = 20, so 8:45 p.m. is **20:45**.
d. Noon is 12 o'clock in the middle of the day. Nothing is added: **12:00**.
e. Midnight is the start of a new day, so the 24-hour clock shows **00:00**.

Answer to Question 4

a. 07 is less than 12, so it is a morning time: **7:20 a.m.**
b. 13 is more than 12, so it is p.m. Take away 12: 13 − 12 = 1. The time is **1:05 p.m.**
c. 18 − 12 = 6, so 18:40 is **6:40 p.m.**
d. 23 − 12 = 11, so 23:15 is **11:15 p.m.**, late in the evening.
e. 00 is the hour just after midnight, which we call 12 in the 12-hour clock: **12:30 a.m.**, half past midnight.

Answer to Question 5

a. Each minute has 60 seconds: 3 × 60 = **180** seconds.
b. Each hour has 60 minutes: 2 × 60 = **120** minutes.
c. How many 60s make 180? 60, 120, 180 is three, so 180 seconds = **3** minutes.
d. Each week has 7 days: 4 × 7 = **28** days.
e. March has **31** days. You can check with the knuckle method: March lands on a knuckle, so it has 31.

Answer to Question 6

a. April has **30** days: "Thirty days has September, April, June and November."
b. The months with 31 days are January, March, May, July, August, October and December: **7** months.
c. A normal year has 365 days. In a leap year February has 29 days instead of 28, so there are **366** days.
d. Each year has 12 months: 2 × 12 = **24** months.

Answer to Question 7

a. 9:00 + 45 minutes = **9:45 a.m.**.
b. 10:30 + 15 minutes = **10:45 a.m.**.
c. 12:15 + 1 hour = **1:15 p.m.**.
d. 1:15 to 3:15 is 2 hours, then 5 minutes more: **2 hours 5 minutes**.

Answer to Question 8

a. 2:40 to 3:00 is 20 minutes. 3:00 to 4:00 is 1 hour. 4:00 to 4:15 is 15 minutes. Total **1 hour 35 minutes**.
b. 60 + 35 = **95** minutes.
c. 2:40 p.m. − 20 minutes = **2:20 p.m.**.
d. Start **14:40**, end **16:15**.

Answer to Question 9

a. 10:05 to 10:30 is 25 minutes. Answer **25 minutes**.
b. 10:40 to 12:55: 10:40 to 11:00 is 20 minutes, 11:00 to 12:00 is 1 hour, 12:00 to 12:55 is 55 minutes. Total **2 h 15 min**.
c. **10 minutes**.
d. From 10:05 to 12:05 is 2 hours. From 12:05 to 12:55 is 50 minutes. Total **2 h 50 min**.

Answer to Question 10

a. 4:45 + 15 minutes = 5:00. 25 more minutes: **5:25 p.m.**.
b. 5:25 + 15 minutes = **5:40 p.m.**.
c. **17:40**.
d. 5:40 to 8:40 is 3 hours, minus 10 minutes: **2 hours 50 minutes**.

Answer to Question 11

a. 1:50 + 10 minutes = 2:00, plus 10 more = **2:10 p.m.**.
b. 2:10 + 45 minutes = 2:55. The cake comes out at **2:55 p.m.**.
c. 2:55 + 30 minutes = **3:25 p.m.**.
d. 20 + 45 + 30 = 95 minutes = **1 hour 35 minutes**.

Answer to Question 12

a. 11:00 + 45 minutes = **11:45 a.m.**.
b. 11:45 + 15 minutes = **12:00 noon**.
c. 12:00 + 45 minutes = **12:45 p.m.**.
d. 45 + 15 + 45 = **105** minutes, or 1 hour 45 minutes.

Answer to Question 13

a. June has 30 days. From 18 June to 18 July is **30 days** (one full month of 30 days).
b. 25 August to 31 August is 6 days. Then 5 more days to 5 September. Total **11 days**.
c. **Tuesday** again, because a week has 7 days.
d. **366** days.

Answer to Question 14

a. 7:50 to 8:00 is 10 minutes. 8:00 to 8:25 is 25 minutes. Total **35 minutes**.
b. 8:25 to 8:45 is **20 minutes**.
c. 7:50 + 30 minutes = **8:20 a.m.**.
d. **08:20**.

Answer to Question 15

a. 07:45 + 1 h 50 min. 07:45 + 1 hour = 08:45. 08:45 + 50 minutes = 09:35. Answer **09:35**.

b. 09:35 + 25 minutes = **10:00**.
c. 10:00 + 55 minutes = **10:55**.
d. 1 h 50 min + 25 min + 55 min = 3 h 10 min. Check: 07:45 to 10:55 is **3 hours 10 minutes**.

Answer to Question 16

a. 10:00 + 1 h 30 min = **11:30 a.m.**.
b. Break 15 minutes: B starts at 11:45. 11:45 + 2 h 5 min = **1:50 p.m.**.
c. Break: C starts at 2:05 p.m. 2:05 + 1 h 45 min = **3:50 p.m.**.
d. **5 hours 50 minutes**. Check: films 5 h 20 min + 2 breaks of 15 min = 5 h 50 min.

Answer to Question 17

a. 3:45 p.m. is in the afternoon: 3 + 12 = 15, so **15:45**. **Wrong**.
b. 120 + 10 = 130. **Right**.
c. 4:50 + 10 minutes = 5:00; 30 more minutes = 5:30. **Right**.
d. IX = 10 − 1 = 9. **Wrong**. XI means 11.

Answer to Question 18

a. The smallest time is fastest: Ben, 18 seconds. The biggest time is slowest: Dev, 24 seconds.
b. 24 − 18 = **6 seconds**.
c. Ben 18, Cara 19, Aisha 21, Dev 24: **Ben, Cara, Aisha, Dev**.
d. 18 + 19 + 21 + 24 = 82 seconds = **1 minute 22 seconds**.

Answer to Question 19

a. 09:30 + 35 minutes = **10:05**.
b. 10:05 + 40 minutes = **10:45**.
c. 10:45 + 50 minutes = **11:35**.
d. 11:35 + 1 h 15 min = 12:50. From 12:50 to 15:00 is 2 hours 10 minutes. Answer **2 hours 10 minutes**.

Answer to Question 20

a. From 09:55 to 10:00 is 5 minutes, then 20 more minutes. Total **25 minutes**.
b. The earliest is **00:00** (midnight) and the latest is **23:59** (one minute before midnight).

c. From 12:34 to 13:00: 60 − 34 = **26 minutes**. Since 12:00: **34 minutes**.