

Reading Time — 12-Hour and 24-Hour Clock

Unit: Money and Time - Student Practice Worksheet

Overview: The train ticket said the train left at 18:45. Kabir read it as "6:45" and nearly missed it — he forgot to check which 6:45. One clock, two ways of writing it, and the difference genuinely matters.

Practice Questions (30 Total)

Section A - Easy

Q1. Digital clock shows 00:00. What moment?

00:00 start of the day

- ☐ A. 12 midnight
- ☐ B. 12 noon
- ☐ C. 1 am
- ☐ D. 11 pm

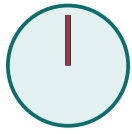
Q2. The 24-hour clock counts hours from:

- ☐ A. 1 to 12
- ☐ B. 0 to 12
- ☐ C. 00 to 23
- ☐ D. 1 to 24

Q3. Convert 15:00 to 12-hour time.

- ☐ A. 3:00 am
- ☐ B. 5:00 pm
- ☐ C. 3:00 pm
- ☐ D. 15:00 am

Q4. Both hands at 12 on a 24-hour timetable. Meaning?



both hands at 12

- ☐ A. 12 midnight
- ☐ B. 12 noon
- ☐ C. 1 pm
- ☐ D. 11 am

Q5. The 24-hour clock never needs which labels?

- ☐ A. am/pm
- ☐ B. Hours
- ☐ C. Minutes
- ☐ D. Seconds

Q6. Convert 09:30 to 12-hour time.

- ☐ A. 9:30 pm
- ☐ B. 21:30
- ☐ C. 12:30 am
- ☐ D. 9:30 am

Q7. 4:00 pm on a 12-hour clock. 24-hour form?

4:00 pm

add 12

- ☐ A. 16:00
- ☐ B. 04:00
- ☐ C. 12:00
- ☐ D. 40:00

Q8. Convert 7:00 am to 24-hour time.

- ☐ A. 19:00
- ☐ B. 07:00
- ☐ C. 70:00
- ☐ D. 17:00

Q9. Convert 20:00 to 12-hour time.

- ☐ A. 8:00 am
- ☐ B. 20:00 pm
- ☐ C. 10:00 pm
- ☐ D. 8:00 pm

Q10. 11:00 am converted for a 24-hour board.

11:00 am

morning

- ☐ A. 23:00
- ☐ B. 11:00
- ☐ C. 01:00
- ☐ D. 13:00

Section B - Medium

Q11. Ticket shows 18:45. 12-hour time?

18:45

subtract 12

- ☐ A. 6:45 pm
- ☐ B. 8:45 pm
- ☐ C. 6:45 am
- ☐ D. 18:45 pm

Q12. A shop opens at 09:00 and closes at 21:00. How long is it open, in hours?

- ☐ A. 10 hours
- ☐ B. 12 hours
- ☐ C. 9 hours
- ☐ D. 21 hours

Q13. Anaya's bus timetable showed 13:40. What time is that in 12-hour format?

- ☐ A. 1:40 am
- ☐ B. 1:40 pm
- ☐ C. 3:40 pm
- ☐ D. 11:40 pm

Q14. Timetable shows 21:15. 12-hour time?

21:15

night bus

- ☐ A. 9:15 am
- ☐ B. 11:15 pm
- ☐ C. 9:15 pm
- ☐ D. 21:15 pm

Q15. Which of these 24-hour times does NOT need any subtraction to convert to 12-hour time?

- ☐ A. 17:30
- ☐ B. 23:30
- ☐ C. 05:30
- ☐ D. 14:30

Q16. Convert 11:45 pm to 24-hour time.

- ☐ A. 11:45
- ☐ B. 13:45
- ☐ C. 21:45
- ☐ D. 23:45

Q17. Movie at 22:30. 12-hour clock?

22:30

late film

- ☐ A. 10:30 pm
- ☐ B. 10:30 am
- ☐ C. 12:30 pm

☐ D. 22:30 pm

Q18. Convert 12:30 am to 24-hour time.

☐ A. 00:30

☐ B. 12:30

☐ C. 24:30

☐ D. 13:30

Q19. Kabir's flight departs at 06:15 and arrives 2 hours later. What is the arrival time in 24-hour format?

☐ A. 04:15

☐ B. 18:15

☐ C. 06:15

☐ D. 08:15

Q20. 12:30 pm on a 24-hour display.

12:30 pm

noon half

☐ A. 00:30

☐ B. 12:30

☐ C. 24:30

☐ D. 00:00

Section C - Challenge

Q21. Departs 23:50, 20 minutes later. Arrival in 24-hour time?

23:50

+ 20 min wraps

☐ A. 00:10

☐ B. 24:10

☐ C. 23:70

☐ D. 01:10

Q22. Anaya says '00:00 and 24:00 mean the exact same moment.' Is she right?

- ☐ **A.** No, 24:00 does not exist
- ☐ **B.** No, they are 12 hours apart
- ☐ **C.** Only on weekends
- ☐ **D.** Yes — both mark the midnight boundary

Q23. A library is open from 08:00 to 20:00. How many hours is that in total?

- ☐ **A.** 10 hours
- ☐ **B.** 12 hours
- ☐ **C.** 8 hours
- ☐ **D.** 20 hours

Q24. Departs 14:20 plus 2 h 30 min. Arrival?



- ☐ **A.** 16:50
- ☐ **B.** 17:20
- ☐ **C.** 12:50
- ☐ **D.** 16:20

Q25. A shop's hours are listed as 'opens 10, closes 22' with no am/pm shown. What format must this be?

- ☐ **A.** 12-hour clock, since am/pm is optional
- ☐ **B.** 24-hour clock — 22 only makes sense above 12
- ☐ **C.** Neither format is being used
- ☐ **D.** It could be either format equally

Q26. Kabir sees 'doors open 19:30, show starts 20:15' on a ticket. How many minutes between doors opening and the show starting?

- ☐ **A.** 30 minutes
- ☐ **B.** 15 minutes
- ☐ **C.** 45 minutes
- ☐ **D.** 75 minutes

Q27. Workshop 09:15 to 17:45. How long?

- ☐ A. 7 hours 30 minutes
- ☐ B. 8 hours
- ☐ C. 9 hours 30 minutes
- ☐ D. 8 hours 30 minutes

Q28. Ms. Rao's train example: missing a 18:45 train by reading it as morning. Why is this mistake specifically a 24-hour clock error?

- ☐ A. Because train times are always wrong
- ☐ B. Because 18:45 does not really exist
- ☐ C. Because reading 18:45 as '6:45' without checking it's already past 12 wrongly assumes it could be am
- ☐ D. Because trains never run in the morning

Q29. A digital clock shows 00:05. What real-world moment does this represent?

- ☐ A. 5 minutes before midnight
- ☐ B. 5 minutes after midnight
- ☐ C. 5 minutes before noon
- ☐ D. 5 minutes after noon

Q30. Which of these pairs represents the SAME moment in time?

- ☐ A. 19:00 and 7:00 pm
- ☐ B. 07:00 and 7:00 pm
- ☐ C. 19:00 and 7:00 am
- ☐ D. 07:00 and 19:00

Answer Key

Q1: (A) (a) 12 midnight.

Q2: (C) (c) 00 to 23.

Q3: (C) (c) 3:00 pm. $15 - 12 = 3$, and it's pm.

Q4: (B) (b) 12 noon.

Q5: (A) (a) am/pm — since every hour has a unique number, no label is needed.

Q6: (D) (d) 9:30 am. Below 12, so it stays the same and is am.

Q7: (A) (a) 16:00. $4 + 12 = 16$, since it's pm.

Q8: (B) (b) 07:00. Am hours stay the same, just written with two digits.

Q9: (D) (d) 8:00 pm. $20 - 12 = 8$, and it's pm.

Q10: (B) (b) 11:00. Am hours below 12 stay the same.

Q11: (A) (a) 6:45 pm. $18 - 12 = 6$, and it's pm.

Q12: (B) (b) 12 hours. 21:00 is 9:00 pm; from 9 am to 9 pm is 12 hours.

Q13: (B) (b) 1:40 pm. $13 - 12 = 1$, and it's pm.

Q14: (C) (c) 9:15 pm. $21 - 12 = 9$, and it's pm.

Q15: (C) (c) 05:30 — it's already 12 or below, so no subtraction is needed.

Q16: (D) (d) 23:45. $11 + 12 = 23$, since it's pm.

Q17: (A) (a) 10:30 pm. $22 - 12 = 10$, and it's pm.

Q18: (A) (a) 00:30. Just after midnight, 12:xx am becomes 00:xx in 24-hour time.

Q19: (D) (d) 08:15. $06:15 + 2 \text{ hours} = 08:15$.

Q20: (B) (b) 12:30. 12 pm times stay as 12:xx in 24-hour time, since 12 noon is the special case.

Q21: (A) (a) 00:10. $23:50 + 20 \text{ minutes}$ crosses midnight to 00:10 the next day.

Q22: (D) (d) Yes — 24:00 is sometimes used to mean the very end of a day, the same instant as 00:00 the next day.

Q23: (B) (b) 12 hours. From 8 am to 8 pm is 12 hours.

Q24: (A) (a) 16:50. $14:20 + 2\text{h}30\text{m} = 16:50$.

Q25: (B) (b) 24-hour clock — since 22 is above 12, it must be 24-hour notation, meaning 10 am to 10 pm.

Q26: (C) (c) 45 minutes. From 19:30 to 20:15 is 45 minutes.

Q27: (D) (d) 8 hours 30 minutes. From 09:15 to 17:15 is 8 hours, plus 30 more minutes to 17:45.

Q28: (C) (c) Reading '18:45' as just '6:45' without noticing it's a 24-hour number above 12 wrongly leaves open whether it's am or pm — but since 18 is above 12, it can ONLY be pm.

Q29: (B) (b) 5 minutes after midnight — 00:00 is midnight, so 00:05 is just after it.

Q30: (A) (a) 19:00 and 7:00 pm — $19 - 12 = 7$, and it's pm.

You've got this! Keep learning and shining! - Ruchi Math Coaching