Training questions for Maths MCQ preparation

Target: 15 questions in 50min

1. **Question:** A plane travels 1000 km due east and then 800 km due north. What is the shortest distance back to the starting point?
   - A. 1600 km
   - B. 1280 km
   - C. 1290 km
   - D. 1400 km

2. **Question:** If an airplane ascends at a 6° angle and covers a horizontal distance of 3000 meters, what is the altitude gained?
   - A. 314 meters
   - B. 310 meters
   - C. 312 meters
   - D. 318 meters

3. **Question:** An airplane decreases its altitude from 10,000 feet to 3,000 feet over a horizontal distance of 120 miles. What is the average descent angle?
   - A. 3.3°
   - B. 2.8°
   - C. 4.2°
   - D. 3.5°

4. **Question:** A flight ticket costs €400, but if you book during a sale, the price is reduced by 15%. How much is the ticket during the sale?
   - A. €340
   - B. €360
   - C. €350
   - D. €320

5. **Question:** If an aircraft's speed is reduced by 10% due to headwind, and its original speed was 500 km/h, what is its new speed?
    - A. 450 km/h
    - B. 460 km/h
    - C. 470 km/h
    - D. 480 km/h

6. **Question:** Calculate the flight time if a plane travels 1500 km at an average speed of 300 km/h.
    - A. 4 hours
    - B. 5 hours
    - C. 6 hours
    - D. 3 hours

7. **Question:** An aircraft burns fuel at the rate of 5 liters per kilometer. How much fuel is needed for a 600 km flight?
    - A. 3000 liters
    - B. 3500 liters
    - C. 4000 liters
    - D. 5000 liters

8. **Question:** A plane travels 400 km north and then 300 km west. What is the shortest distance to the starting point?
    - A. 500 km
    - B. 700 km
    - C. 600 km
    - D. 800 km

9. **Question:** If the ticket price increases by 20% and the new price is €600, what was the original price?
    - A. €480
    - B. €500
    - C. €520
    - D. €540

10. **Question:** An airplane climbs at an angle of 8° from the horizontal and reaches an altitude of 2400 meters. What is the horizontal distance covered during this climb?
- A. 17000 meters
- B. 16000 meters
- C. 15000 meters
- D. 14000 meters

11. **Question:** A flight departs at 3:15 PM and lands at 6:45 PM. How long is the flight?
- A. 3 hours 30 minutes
- B. 4 hours
- C. 3 hours
- D. 2 hours 30 minutes

12. **Question:** If a plane's altitude is 6000 feet and it descends to 4000 feet over a horizontal distance of 80 km, what is the average descent angle?
- A. 1.43°
- B. 2.86°
- C. 3.00°
- D. 2.00°

13. **Question:** An airport charges a 10% tax on a ticket priced at €200. What is the total cost of the ticket?
- A. €220
- B. €210
- C. €230
- D. €240

14. **Question:** A helicopter flies 120 km east and then 160 km south. What is the shortest distance back to the starting point?
- A. 200 km
- B. 280 km
- C. 220 km
- D. 180 km

15. **Question:** A flight is scheduled to last 5 hours but is delayed by 15%. How long will the flight actually last?
- A. 5 hours 45 minutes
- B. 5 hours 30 minutes
- C. 5 hours 15 minutes
- D. 6 hours

16. **Question:** If an airplane travels 500 km with a tailwind adding an extra 50 km/h to its speed, what is the plane's original speed if the total travel time is 1 hour?
- A. 450 km/h
- B. 500 km/h
- C. 550 km/h
- D. 600 km/h

17. **Question:** A plane's average speed for a trip was recorded at 600 km/h. If the distance traveled was 1500 km, how long did the flight take?
- A. 2.5 hours
- B. 3 hours
- C. 3.5 hours
- D. 4 hours

18. **Question:** A flight increases its altitude by 2000 feet, climbing at an angle of 6° from the horizontal. What is the approximate horizontal distance covered during this climb?
- A. 19000 feet
- B. 20000 feet
- C. 21000 feet
- D. 22000 feet

19. **Question:** If a 20% airport tax is applied to a ticket that costs €250, what is the total cost of the ticket?
- A. €300
- B. €310
- C. €320
- D. €350

20. **Question:** Calculate the reduction in travel time if a plane's speed is increased from 500 km/h to 600 km/h for a journey of 1200 km.
- A. 1 hour
- B. 2 hours
- C. 1.5 hours
- D. 2.5 hours

21. **Question:** An airplane flies from City X to City Y, a distance of 400 km north, and then to City Z, 300 km west. What is the shortest path directly from City X to City Z?
- A. 500 km
- B. 600 km
- C. 700 km
- D. 800 km

22. **Question:** If a ticket price is increased by 15% to €230, what was the original price?
- A. €200
- B. €195
- C. €205
- D. €210

23. **Question:** A plane travels at an average speed of 750 km/h for 3 hours. How far does it travel?
- A. 2250 km
- B. 2350 km
- C. 2450 km
- D. 2550 km

24. **Question:** Calculate the decrease in altitude if a plane descends from 35,000 feet to 20,000 feet over a horizontal distance of 150 miles.
- A. 15000 feet
- B. 16000 feet
- C. 17000 feet
- D. 18000 feet

25. **Question:** A plane must fly 300 km east and then 400 km north. What is the shortest path to the starting point?
- A. 500 km
- B. 600 km
- C. 700 km
- D. 800 km

26. **Question:** If an aircraft burns 5 liters of fuel per kilometer and a trip is 800 km long, how much fuel is needed for the trip?
- A. 3500 liters
- B. 4000 liters
- C. 4500 liters
- D. 5000 liters

27. **Question:** An airplane travels at an angle of 4° and gains an altitude of 800 meters. What is the horizontal distance covered?
- A. 11000 meters
- B. 11400 meters
- C. 11500 meters
- D. 12000 meters

28. **Question:** A flight departs at 12:30 PM and arrives at 3:00 PM. How long is the flight?
- A. 2 hours 30 minutes
- B. 3 hours
- C. 3 hours 30 minutes
- D. 4 hours

29. **Question:** If a plane's speed is increased by 100 km/h from its usual speed of 500 km/h, what is the percentage increase?
- A. 18%
- B. 20%
- C. 22%
- D. 25%

30. **Question:** A plane travels 360 km east and 280 km south. What is the shortest path to the starting point?
    - A. 450 km
    - B. 460 km
    - C. 470 km
    - D. 480 km

31. **Question:** If a ticket that normally costs €500 is on sale for 20% off, what is the sale price?
    - A. €400
    - B. €420
    - C. €440
    - D. €450

32. **Question:** Calculate the time savings if a 1500 km flight increases its speed from 300 km/h to 375 km/h.
    - A. 1 hour
    - B. 2 hours
    - C. 3 hours
    - D. 4 hours

33. **Question:** A helicopter ascends to an altitude of 1200 meters at a 5° angle. What is the horizontal distance covered?
    - A. 13600 meters
    - B. 13700 meters
    - C. 13800 meters
    - D. 13900 meters

34. **Question:** A flight lasts 6 hours and covers a distance of 3600 km. What is the average speed?
    - A. 550 km/h
    - B. 600 km/h
    - C. 650 km/h
    - D. 700 km/h

35. **Question:** If the descent angle is 3° and the horizontal distance to the runway is 5000 meters, what altitude did the plane start its descent from?
- A. 250 meters
- B. 260 meters
- C. 270 meters
- D. 280 meters

36. **Question:** A plane travels 220 km west and 165 km south. What is the shortest distance back to its starting point?
- A. 275 km
- B. 285 km
- C. 295 km
- D. 305 km

37. **Question:** Calculate the percentage decrease if a flight time is reduced from 5 hours to 4 hours due to a new route.
- A. 18%
- B. 20%
- C. 22%
- D. 25%

38. **Question:** An airport tax of 12% is added to a ticket that costs €500. What is the total cost of the ticket?
- A. €550
- B. €560
- C. €570
- D. €580

39. **Question:** A jet travels 200 km north and then 300 km east. What is the shortest distance to the starting point?
- A. 360 km
- B. 370 km
- C. 380 km
- D. 400 km

40. **Question:** If an aircraft travels at 400 km/h and increases its speed by 50 km/h, what is the new speed?
- A. 440 km/h
- B. 450 km/h
- C. 460 km/h
- D. 470 km/h

41. **Question:** A flight departs at 9:00 AM and lands at 12:15 PM. How long is the flight?
- A. 2 hours 15 minutes
- B. 3 hours
- C. 3 hours 15 minutes
- D. 4 hours

42. **Question:** If a plane decreases its altitude by 3000 feet while traveling 10,000 feet horizontally, what is the descent angle?
- A. 16.7°
- B. 17.0°
- C. 17.5°
- D. 18.0°

43. **Question:** An airplane flies from city A to city B, 200 km north, and then to city C, 150 km east. What is the direct distance from city A to city C?
- A. 250 km
- B. 260 km
- C. 270 km
- D. 280 km

44. **Question:** If an airplane's speed is 600 km/h and it is reduced by 10% due to weather conditions, what is the new speed?
- A. 540 km/h
- B. 550 km/h
- C. 560 km/h
- D. 570 km/h

45. **Question:** A helicopter climbs 1800 meters at an angle of 10°. What is the horizontal distance covered during this ascent?
- A. 10000 meters
- B. 10180 meters
- C. 10260 meters
- D. 10340 meters

46. **Question:** If a 25% discount is applied to a €400 ticket, what is the discount amount?
- A. €100
- B. €90
- C. €110
- D. €120

47. **Question:** Calculate the fuel consumption for a 500 km flight if the aircraft burns 8 liters per kilometer.
- A. 4000 liters
- B. 4200 liters
- C. 4400 liters
- D. 4600 liters

48. **Question:** A flight is scheduled to take 2.5 hours but is delayed by 20%. How long will the flight actually take?
- A. 3 hours
- B. 3.5 hours
- C. 2 hours 50 minutes
- D. 3 hours 10 minutes

49. **Question:** An airplane travels at an angle of 6° and reaches an altitude of 2400 feet. What is the horizontal distance covered during this climb?
- A. 21000 feet
- B. 22000 feet
- C. 23000 feet
- D. 24000 feet

50. **Question:** If a plane travels 150 km north and then 200 km east, what is the shortest distance back to the starting point?
- A. 250 km
- B. 275 km
- C. 300 km
- D. 350 km

Answers

1. C. 1290 km
2. A. 314 meters
3. A. 3.3°
4. A. €340
5. A. 450 km/h
6. B. 5 hours
7. A. 3000 liters
8. A. 500 km
9. B. €500
10. A. 17000 meters
11. C. 3 hours
12. A. 1.43°
13. A. €220
14. A. 200 km
15. A. 5 hours 45 minutes
16. A. 450 km/h
17. A. 2.5 hours
18. A. 19000 feet
19. A. €300
20. B. 2 hours
21. A. 500 km
22. A. €200
23. A. 2250 km
24. A. 15000 feet
25. A. 500 km
26. B. 4000 liters
27. B. 11400 meters
28. A. 2 hours 30 minutes
29. B. 20%
30. A. 450 km
31. A. €400
32. A. 1 hour
33. C. 13800 meters
34. B. 600 km/h

35. B. 260 meters
36. A. 275 km
37. B. 20%
38. B. €560
39. A. 360 km
40. B. 450 km/h
41. C. 3 hours 15 minutes
42. A. 16.7°
43. A. 250 km
44. A. 540 km/h
45. B. 10180 meters
46. A. €100
47. A. 4000 liters
48. A. 3 hours
49. C. 23000 feet
50. A. 250 km