

DelsuTools Generated Past Questions

PHY 101: General Physics I

Department: Physics | Faculty: Science

Level: 100 | Semester: Harmattan | Session: 2020/2021

1. Question 1: A particle moves with a constant velocity of 11 m/s for 3 seconds. Find the distance traveled.

- A. 33 m
- B. 38 m
- C. 23 m
- D. 0 m

Answer: A

Explanation: Distance = Velocity x Time. Distance = 11 m/s x 3 s = 33 meters.

2. Question 2: Calculate the net force required to accelerate a 4 kg mass at 5 m/s².

- A. 18 N
- B. 20 N
- C. 24 N
- D. 10 N

Answer: B

Explanation: According to Newton's Second Law, Force = Mass x Acceleration. Force = 4 kg x 5 m/s² = 20 N.

3. Question 3: What is the SI unit of power?

- A. Joule
- B. Newton
- C. Watt
- D. Pascal

Answer: C

Explanation: The SI unit of power is the Watt (W), which represents one Joule per second.

4. Question 4: Which of the following is the dimensional formula for acceleration?

- A. LT⁻¹
- B. LT⁻²
- C. MLT⁻²
- D. L²T⁻¹

Answer: B

Explanation: Acceleration is rate of change of velocity: m/s². Thus, the dimensional formula is LT⁻².

5. Question 5: Convert a temperature of 20 degreesC to Fahrenheit.

- A. 68 degreesF
- B. 58 degreesF
- C. 88 degreesF
- D. 100 degreesF

Answer: A

Explanation: Formula: $F = (C * 9/5) + 32$. $F = (20 * 9/5) + 32 = 68$ degreesF.

6. Question 6: A particle moves with a constant velocity of 16 m/s for 2 seconds. Find

the distance traveled.

- A. 32 m
- B. 37 m
- C. 22 m
- D. 0 m

Answer: A

Explanation: Distance = Velocity x Time. Distance = 16 m/s x 2 s = 32 meters.

7. Question 7: Calculate the net force required to accelerate a 4 kg mass at 6 m/s².

- A. 22 N
- B. 24 N
- C. 28 N
- D. 10 N

Answer: B

Explanation: According to Newton's Second Law, Force = Mass x Acceleration. Force = 4 kg x 6 m/s² = 24 N.

8. Question 8: What is the SI unit of power?

- A. Joule
- B. Newton
- C. Watt
- D. Pascal

Answer: C

Explanation: The SI unit of power is the Watt (W), which represents one Joule per second.

9. Question 9: Which of the following is the dimensional formula for acceleration?

- A. LT⁻¹
- B. LT⁻²
- C. MLT⁻²
- D. L²T⁻¹

Answer: B

Explanation: Acceleration is rate of change of velocity: m/s². Thus, the dimensional formula is LT⁻².

10. Question 10: Convert a temperature of 30 degreesC to Fahrenheit.

- A. 86 degreesF
- B. 76 degreesF
- C. 106 degreesF
- D. 100 degreesF

Answer: A

Explanation: Formula: $F = (C * 9/5) + 32$. $F = (30 * 9/5) + 32 = 86$ degreesF.

11. Question 11: A particle moves with a constant velocity of 21 m/s for 4 seconds. Find the distance traveled.

- A. 84 m
- B. 89 m
- C. 74 m
- D. 0 m

Answer: A

Explanation: Distance = Velocity x Time. Distance = 21 m/s x 4 s = 84 meters.

12. Question 12: Calculate the net force required to accelerate a 4 kg mass at 3 m/s².

- A. 10 N
- B. 12 N
- C. 16 N
- D. 10 N

Answer: B

Explanation: According to Newton's Second Law, Force = Mass x Acceleration. Force = 4 kg x 3 m/s² = 12 N.

13. Question 13: What is the SI unit of power?

- A. Joule
- B. Newton
- C. Watt
- D. Pascal

Answer: C

Explanation: The SI unit of power is the Watt (W), which represents one Joule per second.

14. Question 14: Which of the following is the dimensional formula for acceleration?

- A. LT⁻¹
- B. LT⁻²
- C. MLT⁻²
- D. L²T⁻¹

Answer: B

Explanation: Acceleration is rate of change of velocity: m/s². Thus, the dimensional formula is LT⁻².

15. Question 15: Convert a temperature of 40 degreesC to Fahrenheit.

- A. 104 degreesF
- B. 94 degreesF
- C. 124 degreesF
- D. 100 degreesF

Answer: A

Explanation: Formula: F = (C * 9/5) + 32. F = (40 * 9/5) + 32 = 104 degreesF.

16. Question 16: A particle moves with a constant velocity of 26 m/s for 3 seconds. Find the distance traveled.

- A. 78 m
- B. 83 m
- C. 68 m
- D. 0 m

Answer: A

Explanation: Distance = Velocity x Time. Distance = 26 m/s x 3 s = 78 meters.

17. Question 17: Calculate the net force required to accelerate a 4 kg mass at 4 m/s².

- A. 14 N
- B. 16 N
- C. 20 N

D. 10 N

Answer: B

Explanation: According to Newton's Second Law, Force = Mass x Acceleration. Force = 4 kg x 4 m/s² = 16 N.

18. Question 18: What is the SI unit of power?

- A. Joule
- B. Newton
- C. Watt
- D. Pascal

Answer: C

Explanation: The SI unit of power is the Watt (W), which represents one Joule per second.

19. Question 19: Which of the following is the dimensional formula for acceleration?

- A. LT⁻¹
- B. LT⁻²
- C. MLT⁻²
- D. L²T⁻¹

Answer: B

Explanation: Acceleration is rate of change of velocity: m/s². Thus, the dimensional formula is LT⁻².

20. Question 20: Convert a temperature of 50 degreesC to Fahrenheit.

- A. 122 degreesF
- B. 112 degreesF
- C. 142 degreesF
- D. 100 degreesF

Answer: A

Explanation: Formula: F = (C * 9/5) + 32. F = (50 * 9/5) + 32 = 122 degreesF.

21. Question 21: A particle moves with a constant velocity of 31 m/s for 2 seconds. Find the distance traveled.

- A. 62 m
- B. 67 m
- C. 52 m
- D. 0 m

Answer: A

Explanation: Distance = Velocity x Time. Distance = 31 m/s x 2 s = 62 meters.

22. Question 22: Calculate the net force required to accelerate a 4 kg mass at 5 m/s².

- A. 18 N
- B. 20 N
- C. 24 N
- D. 10 N

Answer: B

Explanation: According to Newton's Second Law, Force = Mass x Acceleration. Force = 4 kg x 5 m/s² = 20 N.

23. Question 23: What is the SI unit of power?

- A. Joule
- B. Newton
- C. Watt
- D. Pascal

Answer: C

Explanation: The SI unit of power is the Watt (W), which represents one Joule per second.

24. Question 24: Which of the following is the dimensional formula for acceleration?

- A. LT^{-1}
- B. LT^{-2}
- C. MLT^{-2}
- D. L^2T^{-1}

Answer: B

Explanation: Acceleration is rate of change of velocity: m/s^2 . Thus, the dimensional formula is LT^{-2} .

25. Question 25: Convert a temperature of 60 degreesC to Fahrenheit.

- A. 140 degreesF
- B. 130 degreesF
- C. 160 degreesF
- D. 100 degreesF

Answer: A

Explanation: Formula: $F = (C * 9/5) + 32$. $F = (60 * 9/5) + 32 = 140$ degreesF.

26. Question 26: A particle moves with a constant velocity of 36 m/s for 4 seconds. Find the distance traveled.

- A. 144 m
- B. 149 m
- C. 134 m
- D. 0 m

Answer: A

Explanation: Distance = Velocity x Time. Distance = $36 \text{ m/s} \times 4 \text{ s} = 144$ meters.

27. Question 27: Calculate the net force required to accelerate a 4 kg mass at 6 m/s^2 .

- A. 22 N
- B. 24 N
- C. 28 N
- D. 10 N

Answer: B

Explanation: According to Newton's Second Law, Force = Mass x Acceleration. Force = $4 \text{ kg} \times 6 \text{ m/s}^2 = 24 \text{ N}$.

28. Question 28: What is the SI unit of power?

- A. Joule
- B. Newton
- C. Watt
- D. Pascal

Answer: C

Explanation: The SI unit of power is the Watt (W), which represents one Joule per

second.

29. Question 29: Which of the following is the dimensional formula for acceleration?

- A. LT^{-1}
- B. LT^{-2}
- C. MLT^{-2}
- D. L^2T^{-1}

Answer: B

Explanation: Acceleration is rate of change of velocity: m/s^2 . Thus, the dimensional formula is LT^{-2} .

30. Question 30: Convert a temperature of 70 degreesC to Fahrenheit.

- A. 158 degreesF
- B. 148 degreesF
- C. 178 degreesF
- D. 100 degreesF

Answer: A

Explanation: Formula: $F = (C * 9/5) + 32$. $F = (70 * 9/5) + 32 = 158$ degreesF.

31. Question 31: A particle moves with a constant velocity of 41 m/s for 3 seconds. Find the distance traveled.

- A. 123 m
- B. 128 m
- C. 113 m
- D. 0 m

Answer: A

Explanation: Distance = Velocity x Time. Distance = $41 \text{ m/s} \times 3 \text{ s} = 123$ meters.

32. Question 32: Calculate the net force required to accelerate a 4 kg mass at 3 m/s^2 .

- A. 10 N
- B. 12 N
- C. 16 N
- D. 10 N

Answer: B

Explanation: According to Newton's Second Law, Force = Mass x Acceleration. Force = $4 \text{ kg} \times 3 \text{ m/s}^2 = 12 \text{ N}$.

33. Question 33: What is the SI unit of power?

- A. Joule
- B. Newton
- C. Watt
- D. Pascal

Answer: C

Explanation: The SI unit of power is the Watt (W), which represents one Joule per second.

34. Question 34: Which of the following is the dimensional formula for acceleration?

- A. LT^{-1}
- B. LT^{-2}
- C. MLT^{-2}

D. L^2T^{-1}

Answer: B

Explanation: Acceleration is rate of change of velocity: m/s^2 . Thus, the dimensional formula is LT^{-2} .

35. Question 35: Convert a temperature of 80 degreesC to Fahrenheit.

- A. 176 degreesF
- B. 166 degreesF
- C. 196 degreesF
- D. 100 degreesF

Answer: A

Explanation: Formula: $F = (C * 9/5) + 32$. $F = (80 * 9/5) + 32 = 176$ degreesF.

36. Question 36: A particle moves with a constant velocity of 46 m/s for 2 seconds. Find the distance traveled.

- A. 92 m
- B. 97 m
- C. 82 m
- D. 0 m

Answer: A

Explanation: Distance = Velocity x Time. Distance = $46 \text{ m/s} \times 2 \text{ s} = 92$ meters.

37. Question 37: Calculate the net force required to accelerate a 4 kg mass at 4 m/s^2 .

- A. 14 N
- B. 16 N
- C. 20 N
- D. 10 N

Answer: B

Explanation: According to Newton's Second Law, Force = Mass x Acceleration. Force = $4 \text{ kg} \times 4 \text{ m/s}^2 = 16 \text{ N}$.

38. Question 38: What is the SI unit of power?

- A. Joule
- B. Newton
- C. Watt
- D. Pascal

Answer: C

Explanation: The SI unit of power is the Watt (W), which represents one Joule per second.

39. Question 39: Which of the following is the dimensional formula for acceleration?

- A. LT^{-1}
- B. LT^{-2}
- C. MLT^{-2}
- D. L^2T^{-1}

Answer: B

Explanation: Acceleration is rate of change of velocity: m/s^2 . Thus, the dimensional formula is LT^{-2} .

40. Question 40: Convert a temperature of 90 degreesC to Fahrenheit.

- A. 194 degreesF
- B. 184 degreesF
- C. 214 degreesF
- D. 100 degreesF

Answer: A

Explanation: Formula: $F = (C * 9/5) + 32$. $F = (90 * 9/5) + 32 = 194$ degreesF.

41. Question 41: A particle moves with a constant velocity of 51 m/s for 4 seconds. Find the distance traveled.

- A. 204 m
- B. 209 m
- C. 194 m
- D. 0 m

Answer: A

Explanation: Distance = Velocity x Time. Distance = 51 m/s x 4 s = 204 meters.

42. Question 42: Calculate the net force required to accelerate a 4 kg mass at 5 m/s².

- A. 18 N
- B. 20 N
- C. 24 N
- D. 10 N

Answer: B

Explanation: According to Newton's Second Law, Force = Mass x Acceleration. Force = 4 kg x 5 m/s² = 20 N.

43. Question 43: What is the SI unit of power?

- A. Joule
- B. Newton
- C. Watt
- D. Pascal

Answer: C

Explanation: The SI unit of power is the Watt (W), which represents one Joule per second.

44. Question 44: Which of the following is the dimensional formula for acceleration?

- A. LT^{-1}
- B. LT^{-2}
- C. MLT^{-2}
- D. L^2T^{-1}

Answer: B

Explanation: Acceleration is rate of change of velocity: m/s². Thus, the dimensional formula is LT^{-2} .

45. Question 45: Convert a temperature of 100 degreesC to Fahrenheit.

- A. 212 degreesF
- B. 202 degreesF
- C. 232 degreesF
- D. 100 degreesF

Answer: A

Explanation: Formula: $F = (C * 9/5) + 32$. $F = (100 * 9/5) + 32 = 212$ degreesF.

46. Question 46: A particle moves with a constant velocity of 56 m/s for 3 seconds. Find the distance traveled.

- A. 168 m
- B. 173 m
- C. 158 m
- D. 0 m

Answer: A

Explanation: Distance = Velocity x Time. Distance = 56 m/s x 3 s = 168 meters.

47. Question 47: Calculate the net force required to accelerate a 4 kg mass at 6 m/s².

- A. 22 N
- B. 24 N
- C. 28 N
- D. 10 N

Answer: B

Explanation: According to Newton's Second Law, Force = Mass x Acceleration. Force = 4 kg x 6 m/s² = 24 N.

48. Question 48: What is the SI unit of power?

- A. Joule
- B. Newton
- C. Watt
- D. Pascal

Answer: C

Explanation: The SI unit of power is the Watt (W), which represents one Joule per second.

49. Question 49: Which of the following is the dimensional formula for acceleration?

- A. LT⁻¹
- B. LT⁻²
- C. MLT⁻²
- D. L²T⁻¹

Answer: B

Explanation: Acceleration is rate of change of velocity: m/s². Thus, the dimensional formula is LT⁻².

50. Question 50: Convert a temperature of 110 degreesC to Fahrenheit.

- A. 230 degreesF
- B. 220 degreesF
- C. 250 degreesF
- D. 100 degreesF

Answer: A

Explanation: Formula: $F = (C * 9/5) + 32$. $F = (110 * 9/5) + 32 = 230$ degreesF.