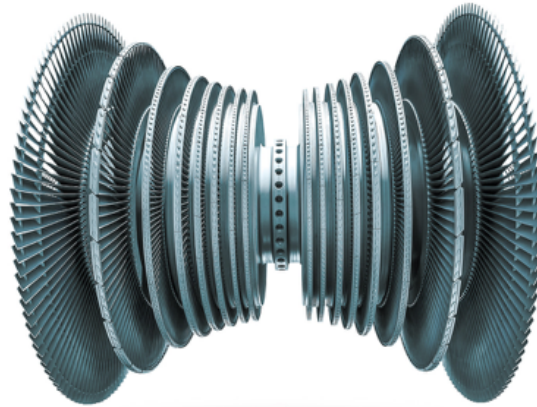UNITED ARAB EMIRATES
MINISTRY OF EDUCATION

GENERAL

10

McGraw-Hill Education
Physics
United Arab Emirates Edition

Mc Graw Hill Education

Physics Grade10 General
Review

Term 1

Physics Grade10 General Review Term !

1. The relationship in this graph is
     Liner   quadratic   invers

2. Speed of bird was 63km/h , what is the speed in m/s
     15m/s   16 m/s   17m/s

3. Witch of the following is equal to 86.2cm?
     8.62m   0.862mm   862dm 8.62×10^{-4}km

4. Which is not base quantity in physics
     length   mass   time   velocity

5. Which is not base unit (not SI)
     m   s   c   kg

6. The formula for liner relationship between y and x is
     y=mx+b   y=ax2+bx+c   y=a/x

7. The formula for quadratic relationship between y and x is
     y=mx+b   y=ax2+bx+c   y=a/x

8. The formula for liner inverse between y and x is
     y=mx+b   y=ax2+bx+c   y=a/x

9. Witch formula is equivalent to   D=M/V
     V=M/D   V=MD/V   V=DM   V=D/M

10. Car moves 65km east then 85Km west , what is the car displacement?
     20km east   20km west   130 east   130 west
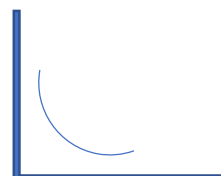
11. in this figure position vectors show movement of an object .
    what is the displacement?
     3m   4m   5m   6m
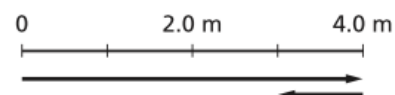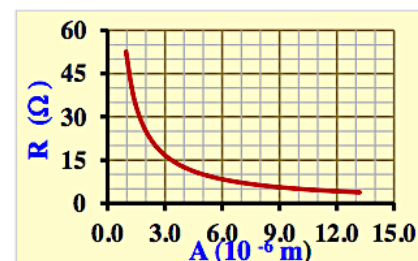
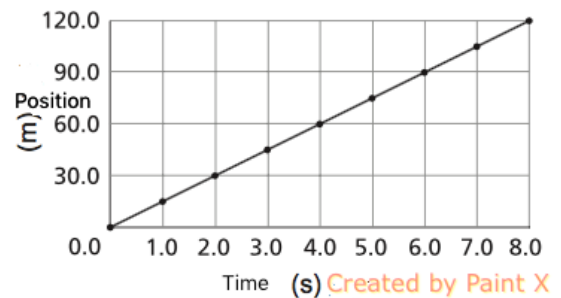12. What is its total distance.
     0m   3m   4m   5m

13. This graph shows electric resistance R for a wire 1m length if
    its dimeter changed at constant temperature, and K is constant
    . which formula do describe this graph
     R=K A +3   R= K(1/A)   R= K A^2 R= K A

14. This position –time graph shows car movement. what
    is its velocity?
    20m/s   15m/s   12m/s   8m/s
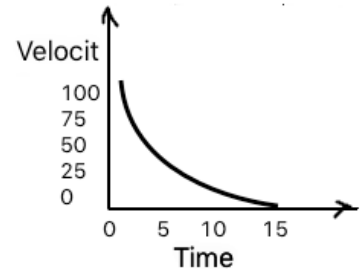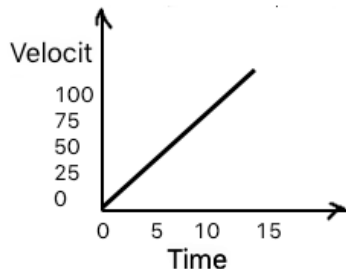

15. Bus moved for 120s at constant average velocity
    10m/s ,then it stops. How much did it move?
    10m   12m   120m   1200m

16. A biker ride at average velocity 4.0m/s for 480 m . how long it takes in seconds?
    8s   120s   476s   1920s

17. Which graph is representing a movement of a plane taking of from rest on its runway?
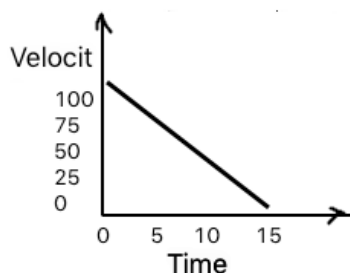
18. This figure shows displacement of a car
    What is the displacement of it ?
    5m   8m   10m   13m
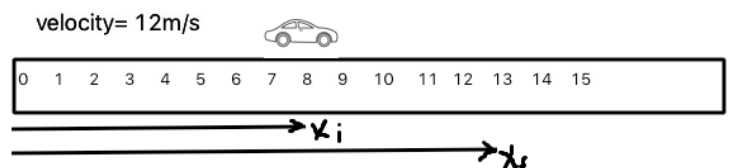
19. Car where at 8m and moved forward to
    reach 13m ,with constant average velocity 12m/s. How much itme it takes?
    0.2s   0.3s   0.4s   0.5s

20. The graph shows a ship movement, it is moving ..
Forward   backward   stop

21. Which is faster
    A   B   C   D

[Type here]   [Type here]   Taher
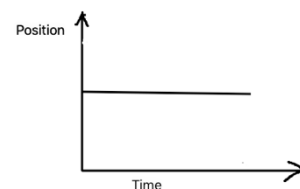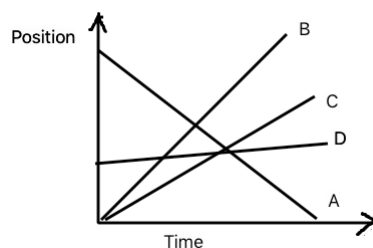
22. What does the slope of position-time graph equal ?
    Displacement   position   average velocity.

23. The SI unit of displacement is
    m/s m^2/s^2 m   Km

24. According to data in table for a movement of an object.
    What is the object displacement after (12s) from its start?

t (s)	0.0	6.0	12	18
X (m)	-40	-10	25	70

    +0.25m   +0.65m   -0.25m   -0.65m

25. What can you conclude about two car A and B movement in the graph.
    a. Car B is faster than car A and in the same
        direction
    b. Car B is faster than car A and in the same
        direction
   c. Two cars are at the same velocity and in the same
        direction.
    d. Two cars are at the same velocity and in opposite
        direction.
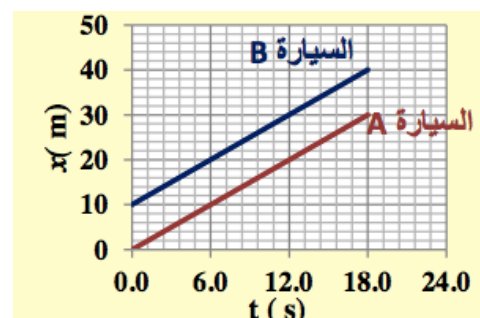
26.

27. 500 mA = …………………A
    5 A   0.5 A $5x10^{-2}$A $5x10^{-3}$ A

28. 50000 g = ………………mg
    50 mg $5x10^4$mg $5x10^6$mg $5x10^7$ mg

29. what is the SI unit of velocity ?   velocity= displacement ÷ time
    km/h   m/h   km/s   m/s

30. 4 Mm = ………………..m
    0.4 $X10^{-3}$m $4X10^3$ m $4X10^6$ m $4x10^9$m

31. $5X10^4$ cm = ……….mm
    $5X10^4$mm $5X10^5$mm $5X10^6$mm $5X10^7$mm

32. Give the name for each of the following multiples of the meter
    a. 1/100 m   …………..
    b. 1/1000 m ………….
    c. 1000 m   …………

33. Speed of light is c=2.99792458 X10^8 m/s . rewrite it in .

    a. three significant figures. ……………………..……………

    b. one significant figures. ……………………..……………

34. given the equation F= $\frac{mv^2}{R}$ what kind of relationship exist between each of the fowling

    a. F and R   …………………………………………

    b. F and m   …………………………………………

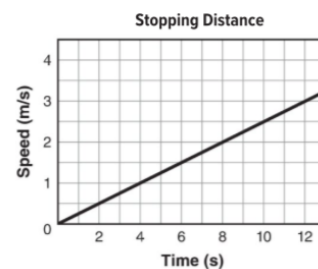   c. F and v   …………………………………………

35. Which of the following is equals to 86.2 cm.

    8.62 m   0.862 mm   8.62X10^{-4} km   862 dm

36.

37. What is the slope of the graph

    0.25m/s^2 0.4m/s^2 2.5m/s^2 4m/s^2

Stopping Distance

38. A runner moved 500 m to the right for 20s , his average velocity is ..

    1000m/s   250m/s   25m/s   0.04m/s

39. An object moves from 11m to 31m in 5 s , its displacement is …

    42m   20m   50m   330m

40. An object moves from 11m to 31m in 5 s , its average velocity is …

    100m/s   40m/s   4m/s   0.4m/s

41. in position- time graph the slope is equals to ..

    velocity   ,distance.   time   displacement

42. A car is moving to right and is going to stop at traffic lights , its particle model will be..
(the direction is from left to right)

    [. .   .   .]   [. . . . . . .]   [.   . . . . . .]

43. What is the average velocity of a train moving a long straight track if its displacement is
192m east during a time period of 8.0s?

    12m/s east   24m/s east   12m/s wast   24m/s west

44. Car A moves 50km in 30min, and car B moves 50km in 40 min ,
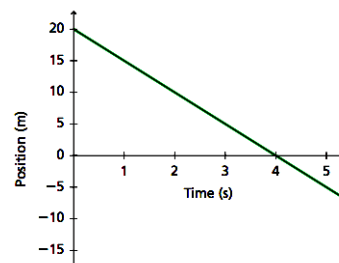so

    A is faster than B   B is faster than A   A speed = B speed

45. Figure p-t graph for a ship- its movement is …
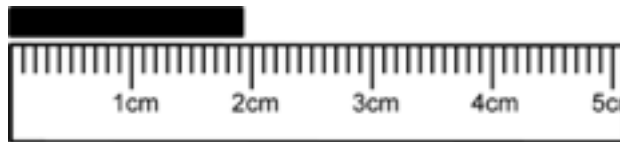
    i. forward   backward   stop

46. Bus is moving forward with a constant speed , its p-t graph will be

    ii. positive slope+   negative slope -   zero slope 0

47. velocity = 12m/s   time= 2min , find displacement = …..?

    6m   24m   240 m   1440m

48. The measurement with this ruler is ….

    (19+0.5)cm   (19+0.05) cm   (19+0.5)mm   (19+0.05)mm

49. **T**he real measurement of object is 19.0 mm , the student measurement was (18.2, 18.3 , 18.4) so he has….

    accuracy   precision   no accuracy and no precision

Compete the units and quantities

quantities	length	time	mass	electric cruunt	temperature	luminous intensity
SI units	……………..	……………..	………….	………….	………….	………….

4- How many significant figures are in each measurement?

measurement	123	6000	5001	0.00230	2.7X10^5	4.00
significant figures						

50. **Do arithmetic with significant figures**

    3.86 m + 2.4 = ……………….. = round ………………

    10.89 A — 6.6 = ……………… =   ………………

    42.31 kg X 6.10m = ………………..=   ………………

51. **Convert** car speed from **90 km/ h**   into   ………. **m/s**

……………………………………………………………………………

52. **How many seconds are in 1 day ?**

………………………………………………….
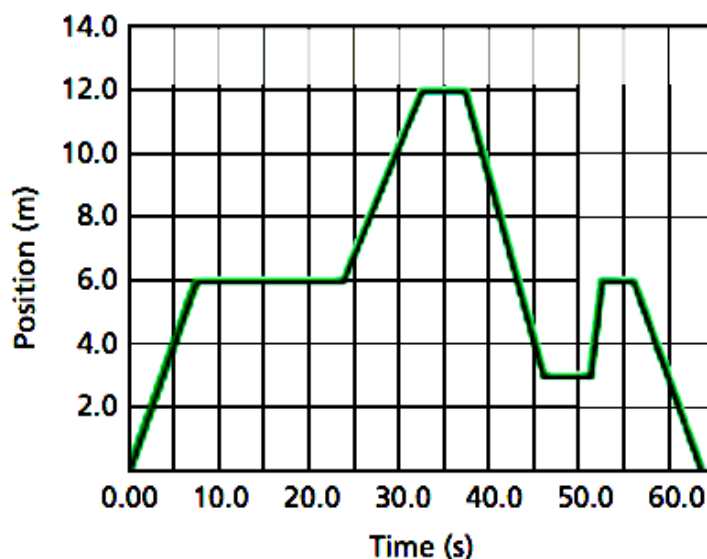
53. **The graph in Figure shows the position-time graph depicting Ibrahim's movement up and down the aisle at a store. The origin is at one end of the aisle**.

a. When does Ibrahim have a position of 6.0 m?

   ………………………………..

b. How much time passes between when Ibrahim enters the aisle and when he gets to a position of 12.0 m?

…………………………………….

c. What is Ibrahim's average velocity between 0.0 s and 6.0 s?

………………………………………………………………………………………………

d. When dose Ibrahim stop?……………………………………………

54. **Two runners were moving along a straight path. The lines representing their motion are labeled A and B.**

Q1. When does runner B pass runner A?
…………………………………….

Q 2: What is the position of A and B at the beginning of the time?…………………………….   …………………….

Q3. What is the position of runner A and runner B when they met each other?

………………………………………………….

Q4. What is the position of A and B at t=25s , and how was ahead?

……………………….   …………………….
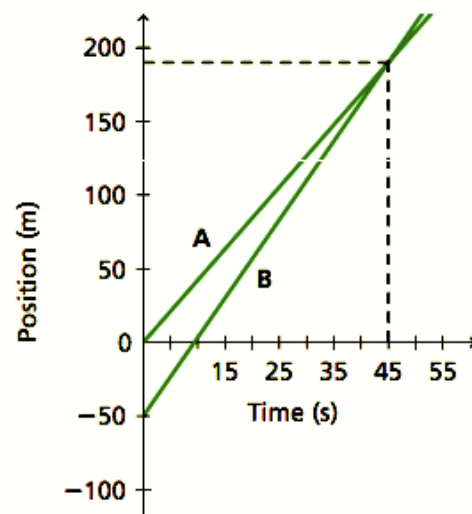
Q5 . who was faster ? …………………….

55. Plot the values given in the table and draw the curve that best fits all point.

Mass (g)	7.9	15.8	23.7	31.6	40
Volume (cm3)	10	20	30	40	50

56. Describe the resulting curve………………
57. Find the slope and its unit………………………
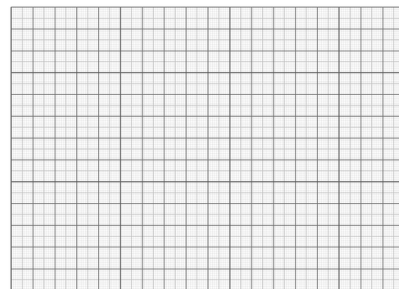
Chapter3   Fundamentals of Light

58. Distinguish among transparent, translucent, and opaque objects
    a. transparent, ………………………………………………………………………………..
    b. translucent……………………………………………………………………………..
    c. opaque ………………………………………………………………………………….

59. Find the illumination 4.0 m below a 405-lm lamp.

………………………………………………………………………………………………

60. A light point source with illuminance flux (1750 lm). What is its luminous intensity in lux?

…………………………………………………………………………………….

61. A point source of light (1500 lm) is 2.0 m from screen A and 4.0 m from screen B, as shown in Figure .How does the illuminance at screen B compare with the illuminance at screen A?

…………………………………………………………………………………….

…………………………………………………………………………………..
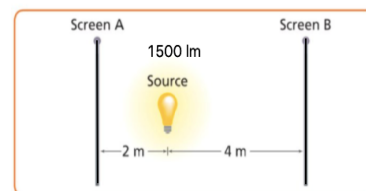
62. A   64 cd point source of light is 3.0 m away from a painting. What is the illumination on the painting in lux?

………………………………………………………………………………………………..

63. .Light takes1.28 s to travel from the Moon to Earth. What is the distance between them?

……………………………………………………………………………………..

64. What is the range of the wavelengths of visible light, from shortest to longest?

……………………………………………………………………………………..

65. Of what colors does white light consist?

……………………………………………………………………………………..

66. If you have yellow, cyan, and magenta pigments,
    a.   how can you make a blue pigment?...
    b. how can you make a blue pigment?…………………………………………..
    c. how can you make a red pigment?…………………………………………..
    d. how can you make a black pigment?…………………………………………..

……………………………………………………………………………………..

67. what are the primary light colors?

   ....

68. What are the secondary light colors?

....

69. What is the illuminance on your desktop if it is lit by a 1750-lm lamp that is 2.50 m above your desk?

....

70. yellow is a complementary color of ..blue..,
71.   blue is a complementary color of ....,
72.   cyan is a complementary color of ....,
73.   magenta is a complementary color of ....,
74.   red is a complementary color of ....,

75. Paper sheet is white because ....
76. Your hair is black because ....

77. What do banana appear when red light fall on it? ....
78. What do banana appear when green light fall on it? ....
79. What do banana appear when blue light fall on it? ....

80. What do tomato appear when blue light fall on it? ....
81. What do tomato appear when green light fall on it? ....
82. What do tomato appear when yellow light fall on it? ....

83. What is the red color frequency if its wavelength is 700nm ,and speed of light is 3.00×10^8m/s

....

84. you were watching a star ,its color looks red . What direction is the star moving ?

....

85. a source of light was 1 m away of a picture .we measure the illuminance it was 140 lx . What will be the illuminance if we put the picture 2m away of light source?

....

....

86. n 1987 a supernova was observed in a neighboring galaxy. Scientists believed the galaxy was 1.66×10 m away. How many years prior to the observation did the supernova explosion actually occur? ($c=3.0 \times 10^8$m/s)

   5.53×10^3y 1.75×10^5y 5.53×10^{12}y 1.7×10^{20}y

87. A galaxy is moving away at 5.8×10 m/s. Its light appears to observers to have a frequency of 14 5.6×10 Hz. What is the emitted frequency of the light?

   1.1×10^{13}Hz 5.5×10^{14}Hz 5.7×10^{14}Hz 6.2×10^{14}Hz

88. The illuminance due to a 60.0-W lightbulb at 3.0 m is 9.35 lx. Whatis the total luminous flux of the bulb?

   8.3×10^{22}lm 7.4×10^{21}lm 1.2×10^2Lm 1.1×10^3lm

[Type here]   [Type here]   Taher

89. Light from the Sun takes about 8.0 min to reach Earth. About   away is the Sun?
    a. 2.4X109 m   1.4X10^{10}m   1.4X10^8 m   2.4X10^9 m
90. What is the frequency of 404 nm of light in a vacuum?
    2.48X10^{23}Hz   7.43X10^5 Hz   2.48X10^6 Hz   7.43X10^{14}Hz

91. Which light color combination is incorrect?
    a. Red plus green produces yellow.
    b. Red plus yellow produces magenta.
    c.   Blue plus green produces cyan.
    d. Blue plus yellow produces white.

92. The illuminance of direct sunlight on Earth is about 1×10^5 lx. A light on a stage has an intensity in a certain direction of 5×10^6 cd. At what distance from the stage does a member of the audience experience an illuminance equal to that of sunlight?
    1.4X10-1 m   7m   10m   5X101m

93. Light source is moving away from you ,so…
    a. the light appears closer to red spectrum
    b. the light appears closer to blue spectrum

94. Light source is moving away from you ,so its wavelength according to observer will …
    Increase   decrease   not change

The End