شكراً لتحميلك هذا الملف من موقع المناهج الإماراتية

أسئلة امتحان نهائي وفق الهيكل الوزاري

تاريخ نشر الملف على موقع المناهج: 2023-11-25 17:20:00 | اسم المدرس: Arabli Haneen

التواصل الاجتماعي بحسب الصف الحادي عشر المتقدم

روابط مواد الصف الحادي عشر المتقدم على تلغرام

التربية الاسلامية	اللغة العربية	اللغة الانجليزية	الرياضيات

المزيد من الملفات بحسب الصف الحادي عشر المتقدم والمادة فيزياء في الفصل الأول

1	حل تجميعة أسئلة مراجعة
2	حل مراجعة الجزء الثاني وفق الهيكل الوزاري
3	حل مراجعة الجزء الأول وفق الهيكل الوزاري
4	حل تجميعة أسئلة وفق الهيكل الوزاري باللغتين العربية والانجليزية
5	حل تجميعة أسئلة وفق الهيكل الوزاري باللغة الانجليزية

+971566494600
رواد التعليمية

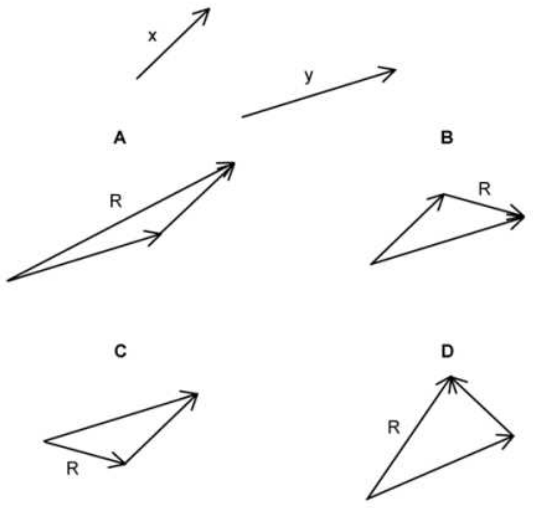
أنت كفو

Grade: 11 ADV

Final exam per EOT

Teacher: Haneen Arabli

Q1: In which of the following diagrams is the addition of vectors x and y represented?



A. A
B. B
C. C
D. D

You may use the following equations	
$y = y_0 + v_{y0}t - \frac{1}{2}gt^2$ $y = y_0 + \overline{v}_y t$	$v_y = v_{y0} - gt$ $\overline{v}_y = \frac{1}{2}(v_y + v_{y0})$ $v_y^2 = v_{y0}^2 - 2g(y - y_0)$
$x = x_0 + v_{x0}t + \frac{1}{2}a_x t^2$ $x = x_0 + \overline{v}_x t$	$v_x = v_{x0} + a_x t$ $\overline{v}_x = \frac{1}{2}(v_x + v_{x0})$ $v_x^2 = v_{x0}^2 + 2a_x(x - x_0)$
$a_x = \frac{d}{dt}v_x = \frac{d}{dt}\left(\frac{d}{dt}x\right) = \frac{d^2}{dt^2}x$	$x(t) = x_0 + \int_{t_0}^{t} v_x(t')\,dt'$
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$H = y_0 + \frac{v_{y0}^2}{2g}$	$R = \frac{v_0^2}{g}\sin 2\theta_0$
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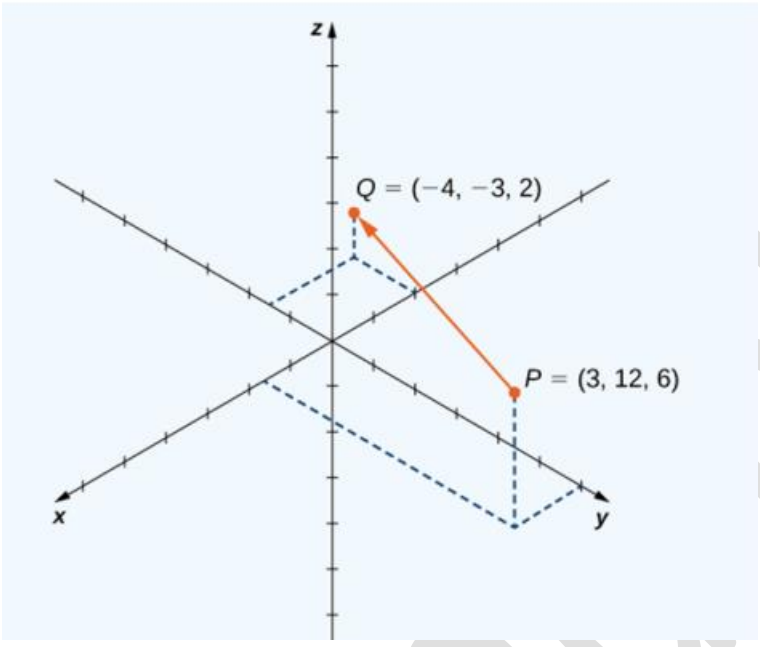
What about subtracting?

Q2: A particle moves from point P to Q , what is the displacement unit vector of this particle?



A. $\overline{PQ} = -7\hat{x} - 15\hat{y} - 4\hat{z}$

B. $\overline{PQ} = -1\hat{x} - 9\hat{y} + 8\hat{z}$

C. $\overline{PQ} = -1\hat{x} - 15\hat{y} + 4\hat{z}$

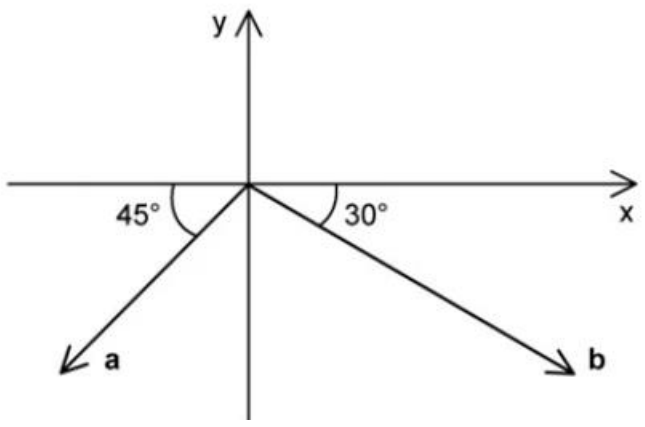
D. $\overline{PQ} = -3\hat{x} - 12\hat{y} + 6\hat{z}$

Q3: What is the angle between the two position vectors?

A (2,-1, 0) & B (3,-5, 1):

A. 47.7
B. 33.74
C. 44.2
D. 0

Q4: what is the summation of vectors on x-axis and y axis if b=3 and a=2?



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$\vec{C} = \vec{A} + \vec{B} = (A_x, A_y, A_z) + (B_x, B_y, B_z) = (A_x + B_x, A_y + B_y, A_z + B_z)$	

A. On x-axis (b cos30 – a cos45)
On y- axis (b cos45 – a sin 30)

B. On x-axis (b cos330 + a cos225)
On y- axis (b sin 330 + a sin 225)

C. On x-axis (b cos30 – a cos45)
On y- axis (b cos45 + a sin 30)

D. None

Q5: C= -7B+3A

A=(2,1) & B=(0,-1)

Find the magnitude and direction with this vector with positive x-axis and negative y-axis respectively:

A. 11.66 (59,31)
B. 11.66 (59,90)
C. 12.12 (60 ,10)
D. 12.12 (30,70)

Q6: A particle travels east with velocity 40 m/s with time 15 min and the travels west with velocity of 20 m/s with time 30 min what is the displacement for this particle:

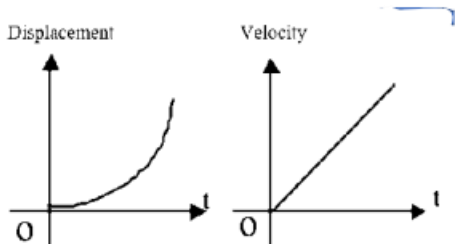
A. 0 m
B. 72000 m
C. – 72000
D. 36000

Try to find distance

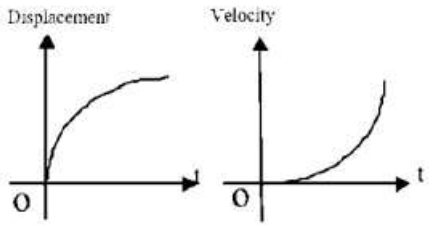
Q7:

Which of the following pairs of graphs shows the (displacement -time) and the (velocity-time) for an object speeding up from rest?

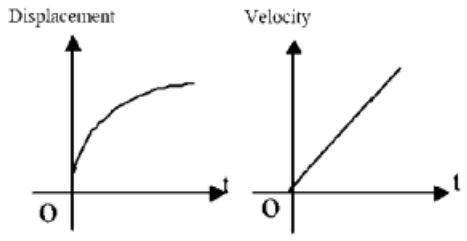
A.



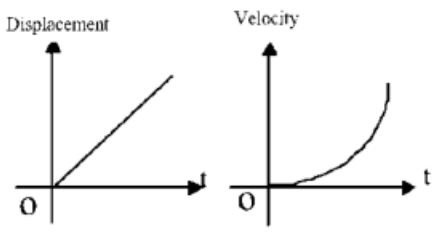
B.



C.



D.



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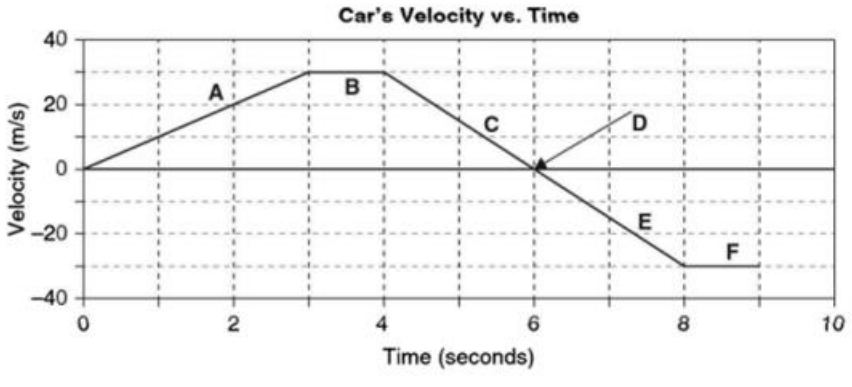
Q8:

The position of an object is given by the equation $x = 3.0\,t^2 + 1.5\,t + 4.5$, where x is in meter and t is in second. What is the instantaneous acceleration of the object at $t = 3.0$ s?

A. 6 m/s2
B. 8 m/s2
C. 12 m/s2
D. 4.5 m/s2

Q9:

The (velocity – time) graph shows a car's motion in 9 s. At which interval is the magnitude of the acceleration greatest?



A. C
B. A
C. B
D. F

Q10:

An object moves such that its position is given by the function $x(t) = 3t^2 - 4t + 1$. The unit of t is second, and the unit of x is meter. After 6 seconds, how fast and in what direction is this object moving if it started at t=0?

A. 32 m/s opposite in direction
B. 16 m/s opposite in direction
C. 32 m/s in the same direction
D. 16 m/s in the same direction

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Q11:

If you drop a ball from a 50 m-tall building, how far is the ball from the ground after 2 s? ($g = -9.8\ m/s^2$)

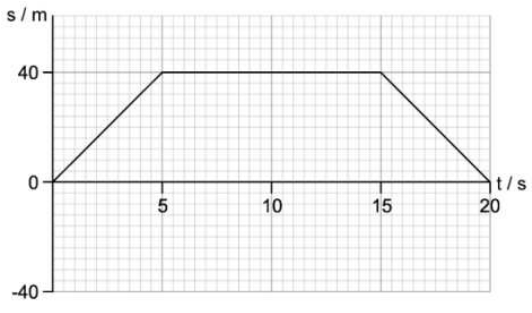
A. 30.4 m
B. 9.8 m
C. 40.3 m
D. 22 m

Q12:

On an airless planet, a ball is thrown downward from a height of 17 m with initial velocity of 15 m/s. If the ball hits the surface in 1 s, what is this planet's gravitational acceleration?

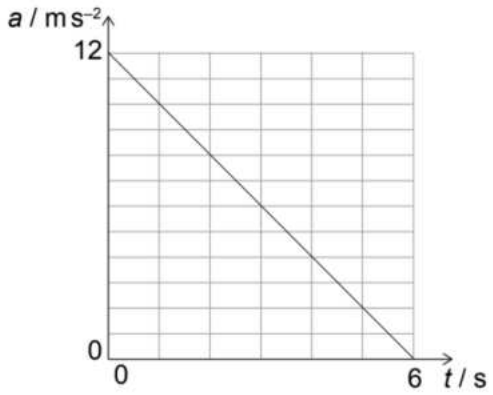
A. 2 m/s2
B. 4 m/s2
C. 32 m/s2
D. 64 m/s2

Q13: A particle moving in a straight line has the displacement–time graph shown.



	Average speed	Average velocity
A.	0	4
B.	0	2
C.	4	0
D.	2	16

Q14: The graph shows the variation of the acceleration a of an object with time t

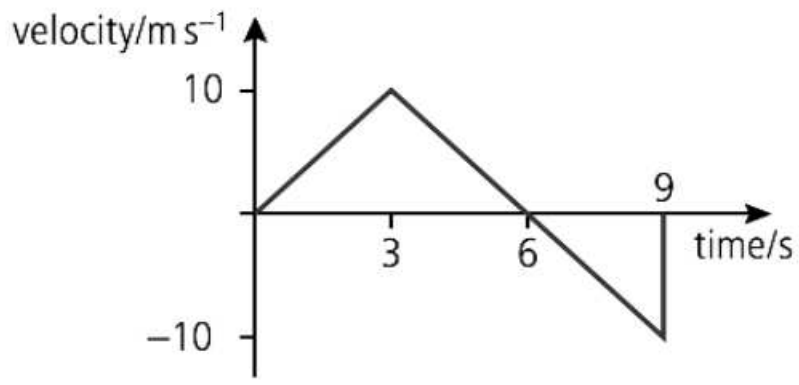


What is the change in speed of the object shown by the graph?

A. 0.5 m/s
B. 2.0 m/s
C. 36 m/s
D. 72 m/s

Q15: for the following figure find the displacement:

From time 6s to 9s



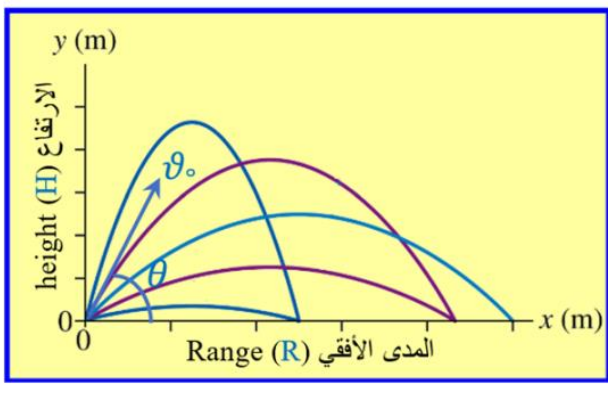
Q16:

A ball is thrown off a 25 m-high cliff. Its initial velocity is 25 m/s, directed at an angle of 53° above the horizontal. What is the maximum height the ball will reach above the ground? ($g = -9.8\ m/s^2$)

A. 20 m
B. 45 m
C. 60 m
D. 70 m

Q17:

The figure shows the motion of a projectile object with an initial velocity $(\vartheta_\circ)$,when ignoring air resistance. What angle (θ) should an object be thrown at to ensure that its maximum height (H) and horizontal range (R) are both equal?

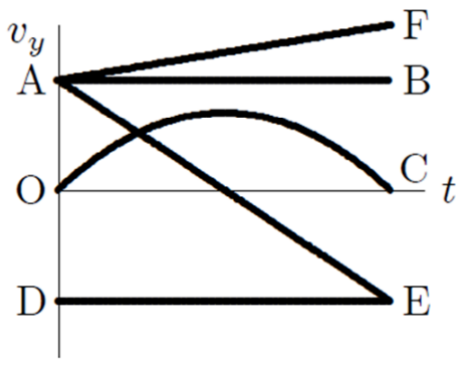


A. 60
B. 72
C. 45

D. 30

Q18:

Which of the curves on the graph below best represents the vertical component v_y of the velocity versus the time t for a projectile fired at an angle above the horizontal?



A. AF
B. AB
C. AE
D. OC
E. DE

Q19:

A projectile is launched with an unknown initial velocity at an angle of 30° from the horizontal of level ground. Which of the following statements is true?

A.

The horizontal component of velocity is greater than the vertical component of velocity.

B.

The horizontal component of velocity is less than the vertical component of velocity.

C.

Both the horizontal and vertical components of velocity are equal

D.

The vertical component of velocity is used to calculate the range of the projectile.

Q20:

An object of unknown mass is initially at rest and dropped from a height h. It reaches the ground with a velocity v_1. The same object is then raised again to the same height h, but this time is thrown downward with velocity v_1 It now reaches the ground with a new velocity v_2. How is v_2 related to v_1?

A.

$v_2 = \sqrt{2}\, v_1$

B.

$v_2 = v_1$

C.

$v_2 = 2v_1$

D.

$v_2 = 4v_1$

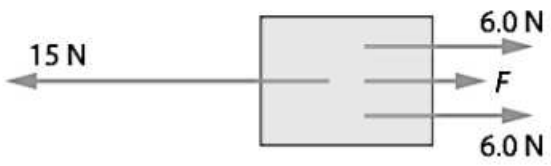
Q21:

When a bus makes a sudden stop, passengers tend to jerk forward. Which of Newton's laws can explain this?

A. Newton's First Law
B. Newton's Second Law
C. Newton's Third Law
D. It cannot be explained by Newton's laws

Q22:

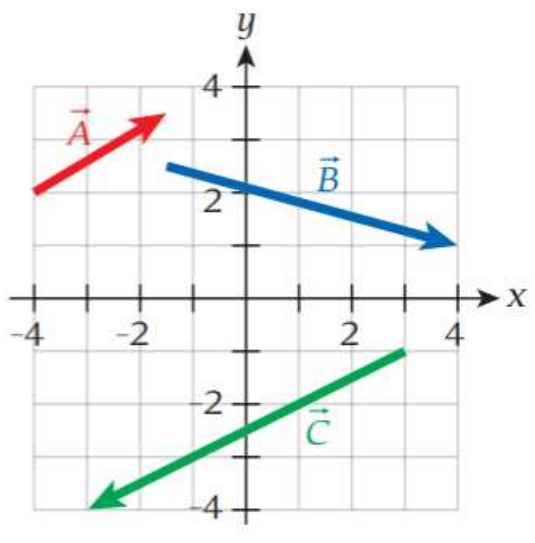
What is the magnitude of the force F in the figure, given that the block is in equilibrium?



A. 3.0 N
B. 12 N
C. 15 N
D. 27 N

Paper:

Q1: for the following figure



A. Find the magnitude and direction for vector A
B. Find 3B-A
C. Find A+B

Q2:

•2.63 A boy is riding his bicycle. When he gets to a corner, he stops to get a drink from his water bottle. At that time, a friend passes by him, traveling at a constant speed of 8.0 m/s.

a) After 20 s, the boy gets back on his bike and travels with a constant acceleration of 2.2 m/s^2. How long does it take for him to catch up with his friend?

b) If the boy had been on his bike and rolling along at a speed of 1.2 m/s when his friend passed, what constant acceleration would he need to catch up with his friend in the same amount of time?

From EOT and solved

Q3:

•2.39 A rabbit runs in a garden such that the x- and y-components of its displacement as functions of time are given by $x(t) = -0.45t^2 - 6.5t + 25$ and $y(t) = 0.35t^2 + 8.3t + 34$. (Both x and y are in meters and t is in seconds.)

a) Calculate the rabbit's position (magnitude and direction) at $t = 10.0$ s.

b) Calculate the rabbit's velocity at $t = 10.0$ s.

c) Determine the acceleration vector at $t = 10.0$ s.

From EOT and solved

Q4:

8. An object is launched horizontally from a height of 20 m above the ground with speed 15 m/s.

Determine:

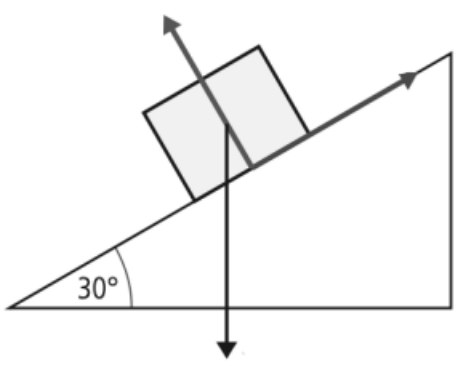
A. the time at which it will hit the ground

B. the horizontal distance travelled

C. the speed with which it hits the ground.

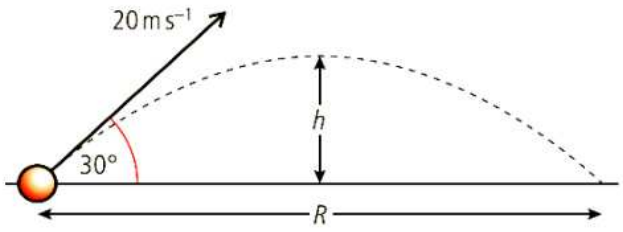
Q5: for this figure the block has mass of 50 Kg and the coefficient of friction = 0.03

Find the the distance traveled if the objects starts from rest and takes 3 seconds to reach the ground



Q6:

10. A ball is thrown at an angle of 30° to the horizontal at a speed of 20 m/s.



a. Calculate the time of flight.

b. Calculate its range.

c. Calculate the maximum height reached