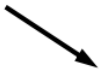
CHERCHER SECONDARY SCHOOL

Grade 10Th Physics Work Sheet From Unit One

From The Given Alternatives Choose The Best Answers

1. A 10 N force is applied in the direction of North-East. Which of the following graph representation of the force is correct? (Assume the length of all arrows are equal and the paper head points towards North?

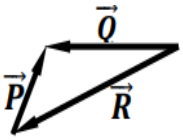
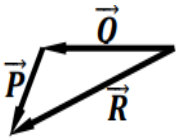
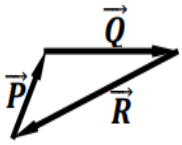
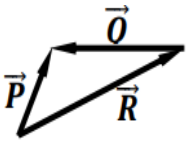
A.  B.  C.  D. 

2. If two vectors **A** and **B** have equal magnitude, what are the maximum and minimum magnitudes of their sum respectively?

   A. (**A** or **B ,** 0) **B**. (2**A** or 2**B,** 0) **C**. (0**,** 0) **D.(** 0**,** 2**A** or 2**B**)

3. If Vector **C** is 6 m in the negative x-direction and Vector **D** is 8m in the y direction. What is the resultant of vectors C and D? **A.** 10m **B.** -2m **C.** 14m **D**.2m

4. Which one of the following graphical vector diagrams exactly represents the operation ***R*** = ***P*** + **?**

A.  B.  C.  D. 

5. Suppose when you go to school you walks 3 km due south and then 5 km due East . What is the magnitude and direction of your displacement vector?

A. 5km, $\tan^{-1}(\frac{3}{5})$, East of south **B.** 8km, $\tan^{-1}(\frac{3}{5})$ South of East

C. 2km, $\tan^{-1}(\frac{3}{5})$, East of south **D.** 5km, $\tan^{-1}(\frac{3}{5})$, south of East

6. Three vectors **A**, **B** and **C** have a magnitude and direction of 10 unit West, 8 unit South and 2 unit East, respectively. What will be the angle between vectors? **A.** 37^0 **B**. 53^0 **C.**45^0 **D.** 90

7. Which of the following is **NOT** a vector quantity?

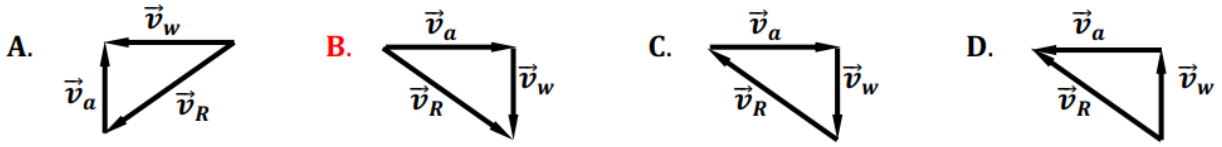
   A. Displacement **B.** Electric field **C.** Work **D.** Acceleration

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8. If a particle is moving at a velocity **u** = 4m/s in the positive x – direction and **v** = 10m/s at 60^0 above **u** . What is the magnitude of the velocity of the particle?

   A. 17 m/s. **B.** 12 m/s. **C.** 9 m/s. **D.** 8 m/s.

9. An aircraft moving initially with a velocity of $\mathbf{V}_a$ due east enters a region where the wind is blowing with a velocity of $\mathbf{v}_w$ due south. Which vector diagram shows the resultant velocity $\mathbf{V}_R$ of the aircraft?



10. Which of the following all are vectors? **A.** Force, speed, Distance and momentum **B.** Work, , time, Velocity and Electric current **C.** Energy, pressure, Volume and acceleration **D**. Momentum, force, acceleration and displacement

Answers

1.B
2.B
3.A
4.B
5.D

6.C
7.C
8.B
9.B
10.D

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