تم تحميل هذا الملف من موقع المناهج الإماراتية


## الملف بوب كويز نموذج ثالث مع الإجابات



## روابط مواقع التواصل الاجتماعي بحسب الصف العاشر المتقدم



## روابط مواد الصف العاشر المتقدم على تلغرام

| التربية الاسلامية | اللغة العربية | اللغة الانجليزية | الرياضيات |
|---|---|---|---|

## المزيد من الملفات بحسب الصف العاشر المتقدم والمادة فيزياء في الفصل الأول

| | |
|---|---|
| 1 | تلخيص مبسط لأول أربع واحدات 20182017 |
| 2 | تحميل دليل المعلم اساسيات الضوء |
| 3 | التوزيع الزمني للخطة الفصلية |
| 4 | ملخص شامل للفصل الرابع (القوى في بعد واحد) |
| 5 | ملخص الوحدة 1234 مدخل الى علم ال |

UNITED ARAB EMIRATES
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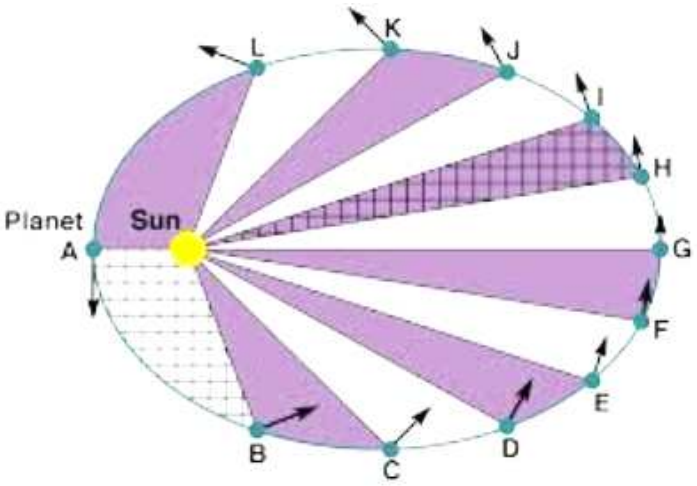
الإمارات العربية المتحدة
وزارة التربية والتعليم

# Grade 10 Physics Pop Quiz 1

| Student Name | | Date | |
|---|---|---|---|

***Choose the best answer***

| | | |
|---|---|---|
| 1 | **Planets orbit the Sun in a shape called a(n)** | |
| | **A** | circle |
| | **B** | ellipse |
| | **C** | focus |
| | **D** | perihelion |

| | | |
|---|---|---|
| 2 | ***What is true about the area between points A, B and the Sun, and the area between points H, I and the Sun?***   | |
| | **A** | The area between A, B and the Sun is the largest. |
| | **B** | Both areas are equal in size. |
| | **C** | The area between H, I and the Sun is the largest. |
| | **D** | There is not enough information to determine the areas |

| | | |
|---|---|---|
| 3 | **Kepler's second law or the equal area law states that the closer a planet is to the sun the _____ it travels.** | |
| | **A** | Faster |
| | **B** | Slower |
| | **C** | Higher |
| | **D** | Lower |

| | | |
|---|---|---|
| 4 | **Kepler's third law:** | |
| | **A** | compares two stars |
| | **B** | compares one planet and the sun |
| | **C** | contrasts mass and size |
| | **D** | compares at least two planets with each other |

| | | |
|---|---|---|
| 5 | **The value of the universal gravitational constant (G) is ….?** | |
| | **A** | 9.8 m/s |
| | **B** | $6.67 \times 10^{11}\ \mathrm{N}.m^2/km^2$ |
| | **C** | $6.67 \times 10^{-11}\ \mathrm{N}.m^2/km^2$ |
| | **D** | $6.67 \times 10^{-11}\ \mathrm{N}.km^2/m^2$ |

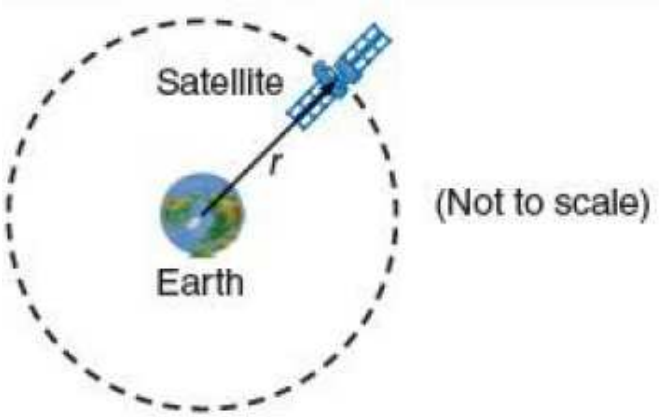
| | | |
|---|---|---|
| 6 | **If a small planet were located 8.0 times as far from the sun as Earth is, how many years would it take the planet to orbit the sun?** | |
| | **A** | *T*x = 20 years |
| | **B** | *T*x = 23 years |
| | **C** | *T*x = 25 years |
| | **D** | *T*x = 33 years |

| | | |
|---|---|---|
| 7 | **Two bowling balls each have a mass of 6.8 kg. They are located next to each other with their centers 21.8 cm apart. What gravitational force do they exert on each other?** | |
| | **A** | $6.5\ \times 10^{-8}\ N$ |
| | **B** | $1.11\ \times 10^{-8}\ N$ |
| | **C** | $6.5\ \times 10^{8}\ N$ |
| | **D** | 65 N |

| | | |
|---|---|---|
| 8 | **A satellite is placed in an orbit with a radius that is half the radius of the moon's orbit. Find its period in units of the period of the moon.** | |
| | **A** | *T*s = 3.5 *T*m |
| | **B** | *T*s = 0.35 |
| | **C** | *T*s = 0.35 *T*m |
| | **D** | *T*s = 35 *T*m |

**9**

**A geosynchronous satellite is one that appears to remain over one spot on Earth, as shown in Figure bellow. Assume that a geosynchronous satellite has an orbital radius of $4.23\times10^7$ m.**

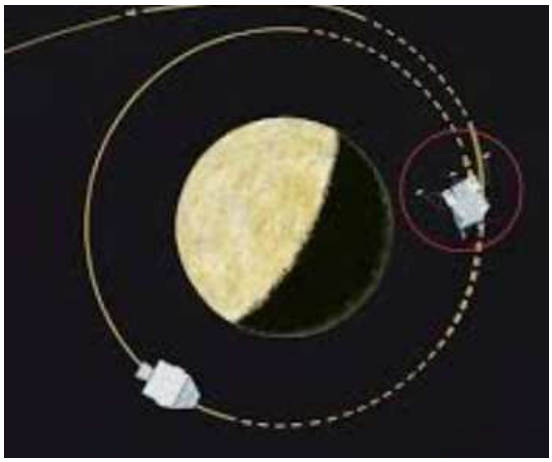



**Calculate its speed in orbit.**

| | |
|---|---|
| **A** | 3.07 km/s |
| **B** | 3.07 km/s |
| **C** | 307 km/s |
| **D** | 2.59 km/s |

**10**

**On July 19, 1969, Apollo 11's orbit around the moon was adjusted to an average orbit of 111 km. The radius of the moon is 1785 km, and the mass of the moon is $7.3 \times 10^{22}$ kg.**



**How many seconds did *Apollo 11* take to orbit the moon once?**

| | |
|---|---|
| **A** | 740 s |
| **B** | $7.4 \times 10^{-3}\ s$ |
| **C** | $4.7 \times 10^{3}\ s$ |
| **D** | $7.4 \times 10^{3}\ s$ |

## Feedback

| Tested Learning outcomes | Question | √ | X | Action (extra practice question) |
|---|---|---|---|---|
| State and discuss the consequences of Kepler's first and second Law | 1&2&3 | | | |
| State and discuss the consequences, and perform calculations using Kepler's third Law | 4 & 6 & 8 | | | |
| State and discuss the consequences, and perform calculations using Newton's law of universal gravitation. | 5 & 7 | | | |
| Explain and make calculations related to satellite and planetary movements, including:<br>– Speed<br>– Period | 9 & 10 | | | |
| **Student Comments** | | | | |
| **Parent Signature** | | | | |

# Grade 10 Physics Pop Quiz 1

## Answer Key

| | |
|---|---|
| Q1 | B |
| Q2 | B |
| Q3 | A |
| Q4 | D |
| Q5 | C |
| Q6 | B |
| Q7 | A |
| Q8 | C |
| Q9 | B |
| Q10 | D |