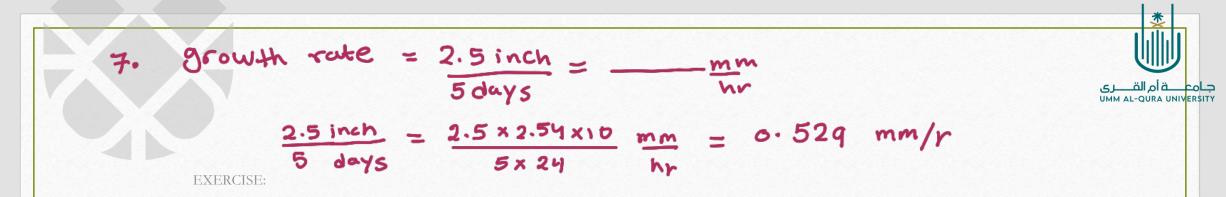


## Homework

## True or False questions

- 1. The SI system has only three base units. X
- 2. The definition of the standard for length is based on the speed of light in vacuum.
- 3. The new definition of the second is based on the period of the Earth's rotation.  $\checkmark$
- Multichoice Questions:
- 4. Which one among the following physics quantities is a derived quantity:
- a- The mass of the proton
- b- The radius of the Earth
- C The speed of sound m/s
  - d- The period of oscillation of a simple pendulum
  - **5.** Given that the force can be written as F = ma, where m is the mass and a is the
  - acceleration, the SI unit for the force is:
- a- *kg m s*
- b- *kg m/s*
- **G** kg m/s<sup>2</sup>
- d- *kg m s*<sup>2</sup>
- Problems:

- km mile = 0 525 = 326.22 mile
- 6. The distance between two cities is d=525 km. Given that 1mile=1.609 km, convert this 1.609
- distance into miles.
- 7. A plant can grow 2.5 inches in 5 days, what is its growth rate in millimetres per hour.
- (1 in=2.54 cm)



How many significant figure has each of the following numbers?

Number	Number of significant figures
154.89	5
0.001002	4
5002	Ч