1 group physics task:

Edited at 3pm 21.9.2017.

1. What is physics?

https://en.wikipedia.org/wiki/Physics

2. Why do we need physics?

https://en.wikipedia.org/wiki/Physics

3. Explain significant figures.

https://en.wikipedia.org/wiki/Significant\_figures

4. What are the Atlantic Rule and the Pacific Rule of calculating the number of significant figures?

5. How many significant figures are in this number 0.0000066750000?

6. Define accuracy and precision.

https://en.wikipedia.org/wiki/Accuracy\_and\_precision

7. What is a systematic error?

8. Show how to calculate compound error for the sum, difference, product and quotient.

Errors:

9. How is bias related to accuracy?

Measures:

10. Link kurtosis to precision. Link systematic error to accuracy.

11. Give the 7 base units.

Kinematics:

12. What is kinematics?

13. Give the main equation for the kinematics in one dimension.

Vectors:

14. What is a vector?

15. Add, subtract and multiply the vectors (2, 8) and (3, -7).

Projectile:

16. Write the equations for the projectile motion in two dimensions.

17. Explain the projectile problem.

18. Find x and y for projectile with x0 = y0 = 0, v0 = 88 m/s, t = 88 seconds, A = 88 degrees.

Find maximum distance and maximum height.

Rotation:

19. Give equations of kinematics of rotation.

20. Find angular velocity and linear acceleration for v = 88 m/s and R = 89 meters.

21. What is the linear velocity in Indonesia due to the rotation of the Earth?

Deadline: 30.9.2017.