

Assignment: Approximate Numbers and Change of Units

Question 1. (3 marks) How many significant digits

- a. 5010
- b. 5010.
- c. 50.00
- d. 0.0052
- e. 0.00500
- f. 3.

Question 2. (1 mark) How many significant digits Are in $2.410 + 1030$, why?

Question 3. (1 mark) Round

- a. 2342223.32 to 2 significant digits.
- b. 0.034200 to 2 significant digit.

Question 4. (3 marks) (use the correct number of signigicant figures)

- a. $435.2234 + 2316.70$
- b. $234 - 26.2$
- c. $11.7 \times 13.2 \times 16.7243$
- d. $34642 \div 212$
- e. $(32.21 + 1.235) \times 22$
- f. $(23.73 \times 34) - (23.5 \div 2.13)$

Question 5. (2 marks) Convert 12550 square feet to

- a. m^2
- b. inch^2
- c. mi^2
- d. km^2

Question 6. (1 mark) Convert 21 000 psi (lb/in^2) to MPa.

Question 7. (2 marks) Convert 65 miles/hr to

- a. km/hr
- b. ft/s
- c. m/min
- d. in/s

Question 8. (1 mark) Convert 2144 ft·lb bending moment to N·m (Newton meters).

Question 9. (1 mark) Convert a load of 22450 lb into kN (kilo Newtons).

Question 10. (1 mark) Convert a load of 460 kN/m into lb/ft.

Question 11. (1 mark) Given 250.1 lbs/ft^3 convert to kg/m^3 .