

PHYSICS INTRO REVIEW

Write the following as a regular number:

- 1) 10^{-2}
- 2) 10^4
- 3) 10^{-1}

Express the following as a regular number:

- 7) 1.99×10^3
- 8) 7.77×10^{-2}
- 9) 5.38×10^1

Express the following in Scientific notation:

- 4) .223
- 5) .00398
- 6) 340000

SI Prefixes Conversion: Complete the following expression

- 10) 30 mm = _____ m
- 11) 120 kg = _____ g
- 12) 90 cm = _____ m
- 13) .156 s = _____ ms

Unit Conversions: 1 inch = 2.54cm, 5,280 ft = 1 mile

- 14) 40 in to cm:
- 15) 300 miles to feet
- 16) 198 in/s to ft/min

Significant Digits

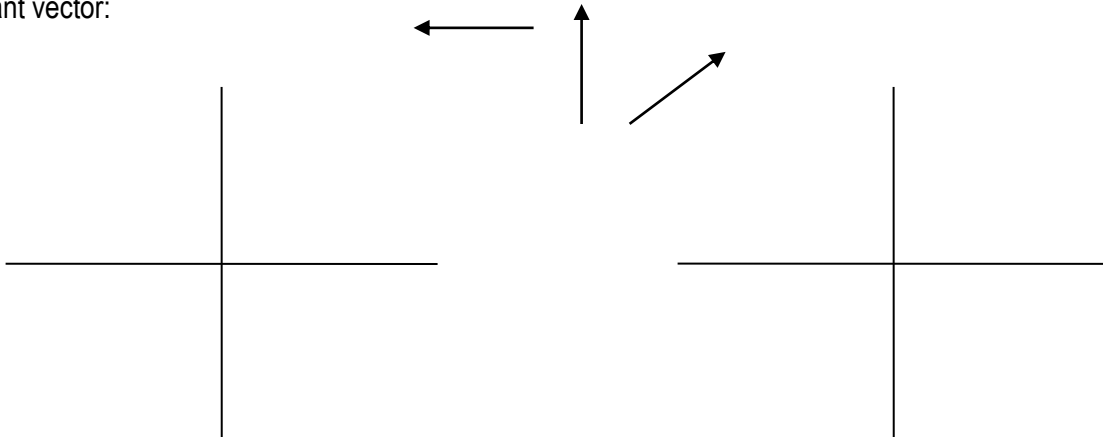
For problems 1 - 10, in the first blank give the number of significant digits in the measurement.

For example: 3 **9070 m**

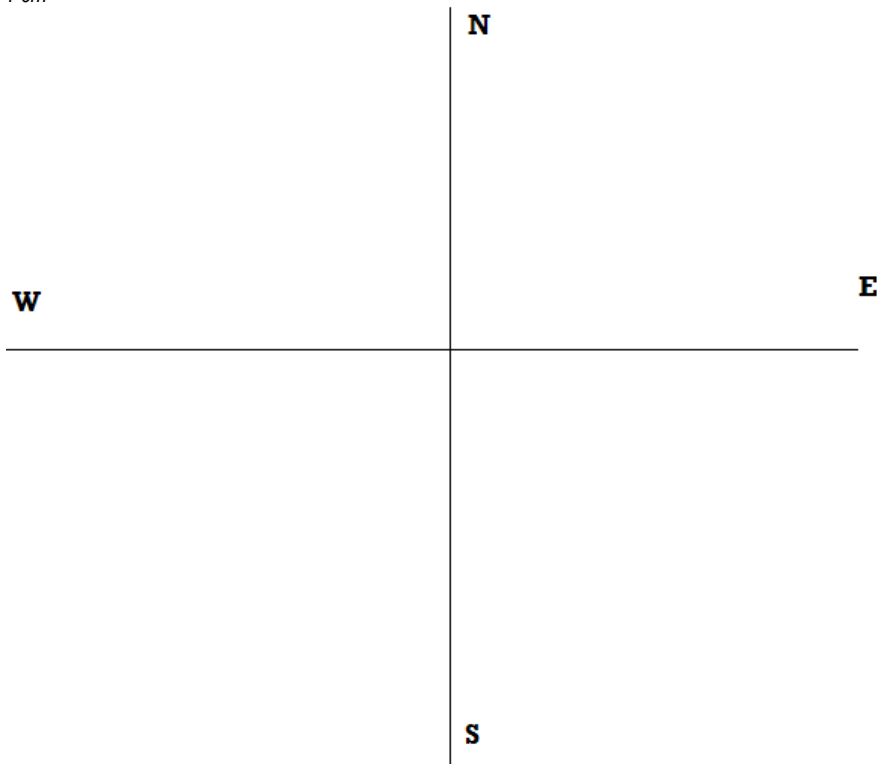
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|-----------|-----------|-----------|---------------------|
| 17. _____ | 0.025 s | 18. _____ | 0.1020 g |
| 19. _____ | 405 kg | 20. _____ | 0.004 ml |
| 21. _____ | 20.50 m | 22. _____ | 20 010 mg |
| 23. _____ | 7 600 cm | 24. _____ | 2.0×10^2 m |
| 25. _____ | 0.0102 kg | 26. _____ | 500 ml |

Vectors

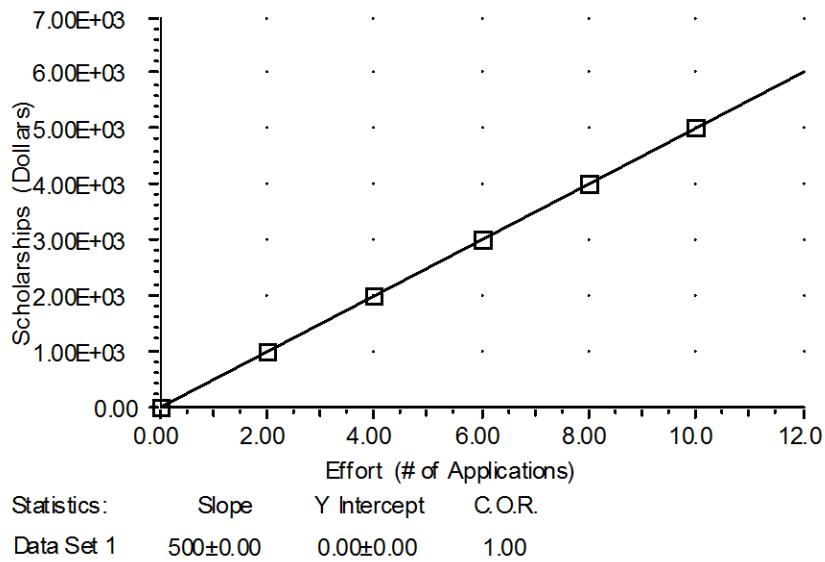
27) The following 3 vectors are to be added. Show two ways they are added on the following graphs AND draw the resultant vector:



28) Find the resultant vector & angle for a person who walks 2 feet east, 3 feet north, 5 feet west, 5 feet south, and 4 feet east: Scale: 1 foot = 1 cm



Below is a graph of the relationship between scholarship awards and the effort students exerted trying to win scholarships.



29) Write the mathematical equation that states the relationship described by the graph.

30) What does the y-intercept illustrate?

31) Explain what the slope means.

32) Using the mathematical model, how many applications would be needed to earn \$8000?