

CHAPTER 1

6. Note the expression: $y = x^2$. Which statement is most consistent with this expression?
- if y doubles, then x quadruples
 - y is greater than x
 - if x doubles, then y doubles
 - if x doubles, then y quadruples
9. Note the expression: $y = A/x^3$. Which statement is most consistent with this expression?
- y is less than A
 - if x is halved, y is multiplied by eight
 - if x is doubled, y is multiplied by a factor of 8
 - y is greater than x
12. If the displacement of an object, x , is related to velocity, v , according to the relation $x = Av$, the constant, A , has the dimension of which of the following?
- acceleration
 - length
 - time
 - area
24. Suppose an equation relating position, x , to time, t , is given by $x = b t^3 + c t^4$, where b and c are constants. The dimensions of b and c are respectively
- T^3, T^4 .
 - $1/T^3, 1/T^4$.
 - $L/T^3, L/T^4$.
 - $L^2 \cdot T^3, L^2 \cdot T^4$.
25. Which point is nearest the x axis?
- $(-3, 4)$
 - $(4, 5)$
 - $(-5, 3)$
 - $(5, -2)$
35. A right triangle has sides 5.0 m, 12 m, and 13 m. The smallest angle of this triangle is nearest

- a. 21°
- b. 23°
- c. 43°
- d. Not attainable since this is not a right triangle.

36. Areas always have dimensions ____ while volumes always have dimensions ____.

- a. m^2, m^3
- b. L^2, L^3
- c. Both a and b are correct.
- d. No answer is correct because of the “always”.

CHAPTER 1 - ANSWERS

#	Ans	Difficulty
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1.	D	1
2.	D	1
3.	A	1
4.	A	2
5.	B	2
6.	D	1
7.	C	1
8.	A	1
9.	B	1
10.	B	1
11.	A	1
12.	C	1
13.	A	1
14.	A	2
15.	C	2
16.	D	1
17.	A	1
18.	C	1
19.	A	1
20.	C	1
21.	D	1
22.	A	1
23.	B	2
24.	C	2
25.	D	2
26.	A	2
27.	D	3
28.	B	2
29.	C	2
30.	D	3
31.	C	2
32.	C	2
33.	D	1
34.	A	3

Chapter 1, Introduction

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| 35. | B | 2 |
| 36. | B | 1 |