

Practice Test—18 October 2005

www.academicmeet.com

1. $13 + 103 + 1003 =$ _____.
2. $627 \div 11 =$ _____.
3. $62\frac{1}{2}\%$ = _____ (decimal).
4. $39 \times 25 =$ _____.
5. $375 - 573 =$ _____.
6. $1.15 - \frac{3}{4} =$ _____ (fraction).
7. Find the GCD of 68 and 51. _____.
8. $19 + 18 \div 2 - 7 =$ _____.
9. 54 feet = _____ yards.
- (*) 10. $247 + 485 - 894 + 608 =$ _____.
11. $442 \div 9 =$ _____ (mixed number).
12. What percent of 40 is 50? _____ %.
13. $73 \times 33 =$ _____.
14. $17 \times \frac{17}{14} =$ _____ (mixed number).
15. $8 \times 8 \times 8 =$ _____.
16. $5\frac{1}{4} \times 11\frac{1}{4} =$ _____ (mixed number).
17. $51 \times 12 =$ _____.
18. $(18 \times 4 \times 5) \div 6$ has a remainder of _____.
19. $9\frac{3}{7}\%$ = _____ (fraction).
- (*) 20. $\sqrt{59999} =$ _____.
21. Pencils cost \$1.44 per dozen. Find the cost of 72 pencils. \$ _____.
22. $53 \times 75 =$ _____.
23. $48^2 - 52^2 =$ _____.
24. $.\overline{87} =$ _____ (fraction).
25. $82 \times 28 =$ _____.
26. $155_{10} =$ _____ $_8$.
27. $86 \times 86 =$ _____.
28. $70 \times 143 =$ _____.
29. If $x^2 = 6$, then $x^4 + 6x^2 + 9 =$ _____.
- (*) 30. $97112 \div 628 =$ _____.
31. If $A = 7$, $B = 6$, and $C = 2$, then $\frac{AB}{-C} =$ _____.
32. 2 pints = _____ ounces.
33. $19 \times 31 =$ _____.
34. $48 \times 42 =$ _____.
35. $57 + 55 + 53 + 51 + \dots + 1 =$ _____.
36. $\frac{3 - 4 \times 5}{3 \times 4 - 5} =$ _____ (mixed number).
37. Find the product of the roots of $8x^3 - 7x^2 + 3x - 7 = 0$. _____.
38. The y -intercept of the line that passes through the points $(-1, 4)$ and $(1, 8)$ is _____.
39. $13 \times 143 =$ _____.
- (*) 40. $\sqrt{794446} =$ _____.
41. $3\frac{3}{5} \times 1\frac{1}{9} \times 2\frac{1}{2} =$ _____.

Dr Numsen—High School Number Sense

42. The greatest integer less than or equal to 2π is _____.
43. $93 \times 94 =$ _____.
44. If $11x + 19 = 38$, then $11x + 3 =$ _____.
45. $37^2 + 67^2 =$ _____.
46. $121_4 =$ _____ $_2$.
47. A triangle with sides of 13, 84 and 85 has area _____.
48. $\sqrt{(44)(99)} =$ _____.
49. $37 \times 27 =$ _____.
- (*) 50. $679 \times 27 + 305 \times 9 =$ _____.
51. Find the volume of a pyramid whose base measures $4''$ and whose height is $2''$. _____ cu. in.
52. $10^{\log 27} =$ _____.
53. $8^{-4/3} =$ _____.
54. ${}_9P_2 =$ _____.
55. $301^2 =$ _____.
56. $\cos(270^\circ) =$ _____.
57. $125 \times 76 =$ _____.
58. ${}_7C_5 =$ _____.
59. $1^3 - 2^3 + 3^3 - 4^3 =$ _____.
- (*) 60. $97 \times 37 \times 23 =$ _____.
61. If $g(x) = x^2 - 1$, then $g(g(2)) =$ _____.
62. $\frac{2! - 3! + 4!}{3!} =$ _____.
63. $605 \times 506 =$ _____.
64. If $\cos x = \frac{11}{12}$, then $\sec x =$ _____.
65. $7 + 10 + 13 + 16 + \dots + 40 =$ _____.
66. Find the remainder when $x^3 + 4x^2$ is divided by $x - 7$. _____.
67. An obtuse triangle has integral sides of 8, 7, and x . The largest value of x is _____.
68. $\sin^{-1}\left(\frac{\sqrt{3}}{2}\right) =$ _____ degrees.
69. $23^2 + 20^2 - 3^2 =$ _____.
- (*) 70. $\sqrt{765432} \times \sqrt[3]{765432} =$ _____.
71. The seventh triangular number is _____.
72. Change $(7, \frac{\pi}{2})$ to rectangular coordinates (x, y) .
 $y =$ _____.
73. The remainder when $6^{11} \div 7$ is _____.
74. $\frac{1}{6} + \frac{1}{10} + \frac{1}{15} =$ _____.
75. Change $\frac{1}{8}$ to a base 4 decimal. _____.
76. $\sec^2\left(\frac{\pi}{4}\right) - 1 =$ _____.
77. If $F(x) = 3x - x^2$, then $F'(-4) =$ _____.
78. $\frac{14}{43} - \frac{5}{14} =$ _____.
79. $\lim_{x \rightarrow 7} \frac{x^3 - 343}{x - 7} =$ _____.
- (*) 80. $14285714 \div 1875 =$ _____.