

Practice Test—3 October 2005

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1. $24 \times 25 =$ _____ .
2. $23 + 24 + 25 =$ _____ .
3. $929 \div 5 =$ _____ (mixed number).
4. $2005 \times 7 + 2005 \times 5 =$ _____ .
5. $105 - 501 =$ _____ .
6. $40\% - .32 + \frac{9}{10} =$ _____ (decimal).
7. $26 \times 11 =$ _____ .
8. 28 gallons = _____ pints.
9. $345 \div 7$ has a remainder of _____ .
- (*) 10. $79 + 333 + 631 + 829 =$ _____ .
11. $10^3 =$ _____ .
12. $8\frac{1}{3}\% =$ _____ (fraction).
13. XXVI = _____ (Arabic numerals).
14. .55 = _____ (fraction).
15. The additive inverse of $\frac{5}{6}$ is _____ .
16. 40% of 60 is _____ .
17. $11 + 16 + 24 + 21 + 19 =$ _____ .
18. The smallest prime number larger than 20 is _____ .
19. $29 \times 31 =$ _____ .
- (*) 20. $496 \times 741 =$ _____ .
21. $12\frac{1}{2}$ feet = _____ inches.
22. $4.6 \times 5 =$ _____ .
23. $59^2 - 49^2 =$ _____ .
24. The GCD of 24 and 28 is _____ .
25. $1 + 2 + 3 + 4 + \dots + 10 =$ _____ .
26. .2222... = _____ (fraction).
27. The area of a square is 64 square feet. Each side of the square measures _____ feet.
28. $28 \times 15 =$ _____ .
29. $\frac{1}{25} =$ _____ (decimal).
- (*) 30. $\sqrt{616511} =$ _____ .
31. $4\frac{2}{5} \times 4\frac{3}{5} =$ _____ (mixed number).
32. Find the product of the roots of $4x^2 - 7x + 8 = 0$.
_____ .
33. The sum of two consecutive integers is 23. Find the larger of these integer. _____ .
34. $56_{10} =$ _____ $_9$.
35. $70 \times 143 =$ _____ .
36. Solve for x : $6x + 15 = 5x + 16$ _____ .
37. 38% of 78 is 19% of _____ .
38. $102 \times 104 =$ _____ .
39. $\sqrt{256} =$ _____ .
- (*) 40. $816355 \div 862 =$ _____ .
41. $38 \times 32 =$ _____ .
42. If $2x + 1 < 3$, then $x <$ _____ .

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43. The next term in the sequence 7, 10, 13, 16, ... is _____.
44. The set $\{G, O\}$ has _____ subsets.
45. If $7^{x+1} = 91$, then $7^x =$ _____.
46. $125 \times 36 =$ _____.
47. $69^2 + 23^2 =$ _____.
48. If $f(x) = x^2 + 2x + 1$, find $f(19)$. _____.
49. $14 + 56 \div 8 - 7 =$ _____.
- (*) 50. $82 \times 78 \times 5\frac{1}{2} =$ _____.
51. $11 \times 12 + 13 =$ _____.
52. $(45 \times 17 - 3) \div 4$ has a remainder of _____.
53. $\log_3 27 =$ _____.
54. $\left(7\frac{1}{2}\right)^2 =$ _____ (mixed number).
55. Find the probability of rolling two fair dice whose sum is 10. _____.
56. If $4x + 16 = 7$, then $4x - 2 =$ _____.
57. $5 + 15 + 25 + 35 + \dots + 85 =$ _____.
58. ${}_7P_2 =$ _____.
59. The smallest leg of a right triangle with integral sides is 11. Find the length of the hypotenuse.
_____.
- (*) 60. $\sqrt{75121} =$ _____.
61. $\log_8 16 - \log_8 2 =$ _____.
62. $1110 \div 37 =$ _____.
63. $121 \times 67 =$ _____.
64. If $f(x) = -6x - 2$ and $g(x) = \sqrt{x}$, then $g(f(-3)) =$ _____.
65. $59^2 + 59 =$ _____.
66. $\cos^{-1}(0) =$ _____ degrees.
67. Change $\left(1, \frac{3\pi}{2}\right)$ to rectangular coordinates (x, y) .
 $y =$ _____.
68. The remainder when $7^{23} \div 8$ is _____.
69. $12^2 - 13^2 + 14^2 - 15^2 =$ _____.
- (*) 70. $190658 \div 10.1 \div 35 =$ _____.
71. $\sin(\cos^{-1}(\sqrt{3}/2)) =$ _____.
72. Change .66 in base 7 to a base 10 fraction.
_____.
73. If $g(x) = \tan(x - \pi/4)$, then $g(\pi/4) - g(0) =$ _____.
74. $\frac{5}{6} \times 5 - 5 =$ _____.
75. The 5th triangular number is _____.
76. $31_4 + 22_4 =$ _____₄.
77. The maximum value of $\sin 2x + 1$ is _____.
78. $\lim_{x \rightarrow -4} \frac{x^2 - 16}{x + 4} =$ _____.
79. $\int_0^2 (2x + 4) dx =$ _____.
- (*) 80. $1444 \div 111 \times 455 =$ _____.