

1. $732 \times 11 =$ _____ .
2. $748 - 487 + 874 =$ _____ .
3. $\frac{11}{12} - \frac{19}{24} =$ _____ (decimal).
4. $759 \div 3$ has a remainder of _____ .
5. $\frac{1}{35} =$ _____ % (mixed number).
6. $255 \div 15 =$ _____ .
7. $\frac{2}{5}\%$ = _____ (fraction).
8. $\$4.05 + 24$ nickels = \$ _____ .
9. $1\frac{1}{2}$ kilograms = _____ milligrams.
- (*) 10. $297 \times 403 =$ _____ .
11. Find the LCM of 14 and 52. _____ .
12. 7% of 40 = _____ (mixed number).
13. $\frac{7}{9} - \frac{3}{8} =$ _____ .
14. $10.4 \times 25 =$ _____ .
15. How many positive integral divisors does 84 have?
_____ .
16. $89 \times 12 =$ _____ .
17. $527 \div 9 =$ _____ (mixed number).
18. $4 + 16 + 36 + 64 + 100 =$ _____ .
19. $\frac{3}{11} + \frac{11}{3} =$ _____ (mixed number).
- (*) 20. $64 \times 376 =$ _____ .
21. $21 \times 858 =$ _____ .
22. $95 \times 95 =$ _____ .
23. $.64444\dots =$ _____ (fraction).
24. $7\frac{2}{5} \times 7\frac{3}{5} =$ _____ (mixed number).
25. How many distinct roots does $\frac{1}{2}x^2 + 2(x+1) = 0$ have? _____ .
26. $994 \times 989 =$ _____ .
27. $333_4 =$ _____ $_3$.
28. Find the simple annual interest on \$750.00 at $6\frac{1}{2}\%$ for 2 years. \$ _____ .
29. $18 \times 3\frac{1}{3} =$ _____ .
- (*) 30. $7\frac{5}{8} \times 36259 - 57300 =$ _____ .
31. $46 \times 84 =$ _____ .
32. $36^2 + 12^2 =$ _____ .
33. $18 \times 98 =$ _____ .
34. If $f(x) = x^3 + x^2 + x + 1$, find $f(-3)$. _____ .
35. $122 \times 111 =$ _____ .
36. The smaller leg of a 30° - 60° - 90° right triangle is 16. Find the hypotenuse. _____ .
37. $23 \times 32 =$ _____ .
38. $9\frac{6}{7} \times 5\frac{6}{7} =$ _____ (mixed number).
39. 40 inches = _____ yards (mixed number).
- (*) 40. $\sqrt{472788} =$ _____ .
41. If $8x - 5 \leq 35$, then $x \leq$ _____ .
42. $(\sqrt[3]{64} + \sqrt{64})^3 =$ _____ .
43. $100010_3 =$ _____ $_9$.

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44. The hypotenuse of a right triangle is 15. If one leg is $4\sqrt{11}$, find the other leg. _____.
45. $\frac{9}{8} - \frac{7}{6} - \frac{5}{4} + 3 =$ _____.
46. Find the product of the roots of $3x^3 - 5x + 7 = 0$. _____.
47. 224 ounces = _____ gallons.
48. $\sqrt{(162)(72)} =$ _____.
49. $3 - 4 + 33 - 44 + 333 - 444 =$ _____.
- (*) 50. $79 \times 78 \times 15 =$ _____.
51. $\frac{8! \times 7!}{6! \times 5!} =$ _____.
52. The next term in the sequence 8, 2, 0, $-\frac{2}{3}$, ... is _____.
53. $69 \times 65 =$ _____.
54. If $(\sqrt{a^5})(\sqrt[5]{a^2}) = a^x$, then $x =$ _____.
55. The geometric mean between 4 and 16 is _____.
56. Find the probability of rolling two fair dice whose sum is 6. _____.
57. $175_8 \div 5_8 =$ _____.
58. $125 + 5 + \frac{1}{5} + \dots =$ _____.
59. Find the coefficient of the last term of the binomial expansion of $(x - 2y)^8$. _____.
- (*) 60. $\sqrt{37} \times \sqrt{377} \times \sqrt{3777} =$ _____.
61. $\cos^2 \frac{5\pi}{4} =$ _____.
62. If $\log_8 75 - \log_8 5 = \log_8 x$, then $x =$ _____.
63. $714^2 =$ _____.
64. $1 - 2 + 4 - 8 + 16 - 32 + 64 - 128 =$ _____.
65. $2^6 \times 5^2 \times 1.5^5 =$ _____.
66. Find the volume of a pyramid whose base measures $2''$ and whose height is $9''$. _____ cu. in.
67. If $f(x) = 7x - 3$, then $f(f(4)) =$ _____.
68. $68 \times 62 + 9 =$ _____.
69. $84^2 - 83^2 + 82^2 - 81^2 =$ _____.
- (*) 70. $1.9^3 \times 9.1^3 =$ _____.
71. $\frac{1}{15} + \frac{1}{21} + \frac{1}{28} + \frac{1}{36} =$ _____.
72. $\lim_{\theta \rightarrow \infty} \cos\left(\frac{1}{\theta}\right) =$ _____.
73. If $\cot A = 3$, then $\csc^2 A =$ _____.
74. $\frac{2}{5} - \frac{23}{54} =$ _____.
75. The radius of a circle is $4\sqrt{2}$. Find the area of the square inscribed in the circle. _____.
76. Change $(3, \frac{3\pi}{2})$ to rectangular coordinates (x, y) .
 $x =$ _____.
77. The sum of the fourth and fifth hexagonal numbers is _____.
78. If $\sin(210^\circ) \cos(45^\circ) + \sin(45^\circ) \cos(210^\circ) = \cos \alpha$ and $0^\circ \leq \alpha \leq 180^\circ$, then $\alpha =$ _____.
79. If $f(x) = \frac{Ax + 1}{15x + 14}$ has a horizontal asymptote of $y = -2$, then $f(1) =$ _____.
- (*) 80. $\int_2^{12} 1.44x^2 - 1.2x + 2 \, dx =$ _____.