

1. $4394 + 4907 =$ _____ .
2. $903 \times 17 =$ _____ .
3. $36 \times 24 + 36 \times 12 =$ _____ .
4. $\frac{1}{6} =$ _____ % (mixed number).
5. Find the remainder when 7905 is divided by 3.
_____ .
6. $386 \times 11 =$ _____ .
7. $428 \div 8 =$ _____ (mixed number).
8. Find the GCD of 88 and 11. _____ .
9. $\frac{8^2}{7^2 - 1} =$ _____ .
- (*) 10. $49 + 793 + 245 - 19 =$ _____ .
11. $75 \times 12 =$ _____ .
12. CLXXXIV = _____ (Arabic numerals).
13. .575 = _____ (fraction).
14. 36 feet = _____ yards.
15. $32 \times 72 =$ _____ .
16. $59 + 49 + 39 + 29 + 19 =$ _____ .
17. $3\frac{1}{3} \times 15 =$ _____ .
18. $97 \times 94 =$ _____ .
19. Find the sum of all primes between 20 and 30.
_____ .
- (*) 20. $584 \times 153 =$ _____ .
21. $2\frac{1}{12}$ quarts = _____ pints.
22. $121 \times 12 =$ _____ .
23. $14 \times 715 =$ _____ .
24. $\sqrt{(16)(25)} - (\sqrt{16} + \sqrt{25}) =$ _____ .
25. $95 \times 35 =$ _____ .
26. $16^2 + 32^2 =$ _____ .
27. $45^2 =$ _____ .
28. $81 \times 79 =$ _____ .
29. The area of a triangle is 64. If the base is twice the height, find the base. _____ .
- (*) 30. $83286 \div 227 =$ _____ .
31. The absolute value of $(17)(-2)$ is _____ .
32. $47 \times 49 =$ _____ .
33. The side of a square is $23\sqrt{2}$. What is the length of its diagonal? _____ .
34. $32_5 =$ _____ ₁₀.
35. $4.8 \times 7.5 =$ _____ .
36. $34 \times 43 =$ _____ .
37. 3 gallons = _____ ounces.
38. The average of 40, 52, and -74 is _____ .
39. If $f(x) = x^3 + 1$ and $f(z) = 1001$, then $f(1/z) =$ _____ .
- (*) 40. $\sqrt{20050} =$ _____ .
41. $4\frac{1}{10} \times 4\frac{9}{10} =$ _____ (mixed number).

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42. $104 \times 107 =$ _____ .
43. The set $\{1, 2, 3, 4, 5, 6\}$ has _____ subsets.
44. $12\frac{1}{2} \times 328 =$ _____ .
45. $.383838\dots =$ _____ (fraction).
46. If $8x + 12 \leq 13$, then $x \leq$ _____ .
47. $4\frac{16}{21}\%$ = _____ (fraction).
48. The sum of 12 and x equals the product of 12 and $x/2$. Find x . _____ .
49. The 41st term in the sequence 2, 4, 6, 8, ... is _____ .
- (*) 50. $4^4 \times 15^2 =$ _____ .
51. $989 \times 989 =$ _____ .
52. $308^2 =$ _____ .
53. If $\log_9 25 - \log_9 5 = \log_9 x$, then $x =$ _____ .
54. If $n! = 5! \times 3!$, then $n =$ _____ .
55. $11118 \div 102 =$ _____ .
56. Find the probability of rolling two fair dice whose sum is 4. _____ .
57. The angles of a triangle are x , x , and $x + 30^\circ$. How many obtuse angles does this triangle have? _____ .
58. $76^2 + 70^2 - 6^2 =$ _____ .
59. $(4 + i)(8 - 2i) =$ _____ .
- (*) 60. $123 \times 124 =$ _____ .
61. $\log_4 .125 =$ _____ .
62. If $\cos x = \frac{5}{13}$, then $\sin^2 x =$ _____ .
63. $113_5 \times 11_5 =$ _____ ₅.
64. $\cos(\sec^{-1}(3)) =$ _____ .
65. How many positive 3-digit integers are divisible by 9? _____ .
66. $\frac{2}{13} - \frac{13}{92} =$ _____ .
67. The vertex of the parabola $y = x^2 - 6x + 8$ is (a, b) .
 $b =$ _____ .
68. $\ln(e^4) =$ _____ .
69. Find the largest integer N such that $2^N < 1500$.
_____ .
- (*) 70. $3691215 \div 4 \div 8.1 =$ _____ .
71. If $f(x) = \frac{x-6}{2x+7}$, and $f^{-1}(x) = \frac{7x+b}{cx+d}$, then $c =$ _____ .
72. ${}_6P_3 =$ _____ .
73. $29^2 + 29 =$ _____ .
74. If $g(x) = \sin(2x)$, then $g'(\pi/2) =$ _____ .
75. The positive difference between the geometric mean and arithmetic mean of 2 and 8 is _____ .
76. How many faces does a tetrahedron have? _____ .
77. $19^2 - (11^2 - 8^2) =$ _____ .
78. The eighth pentagonal number is _____ .
79. $\frac{13}{8} + \frac{8}{13} - 2 =$ _____ .
- (*) 80. $.39999\dots \times 14 \times 10^2 =$ _____ .