(1) \( \frac{1}{12} = \) ____________ %
(2) \( 2008 - 2009 = \) ____________
(3) \( 304\% = \) ____________ (mixed number)
(4) \( \frac{5}{6} + \frac{7}{8} = \) ____________ (improper fraction)
(5) \( 123 \times 8 + 3 = \) ____________
(6) \( 28 - 208 - 2008 = \) ____________
(7) \( \frac{13}{8} = \) ____________ % (decimal)
(8) \( 11 \times 328 = \) ____________
(9) \( 82.4 - 7.83 = \) ____________
*(10) \( 862 + 1206 + 2094 = \) ____________
(11) \( \frac{6}{5} \div 11 = \) ____________ (decimal)
(12) \( 1 + 3 + 5 + 7 + \ldots + 43 = \) ____________
(13) \( \text{LCM}(12, 20) \times \text{GCD}(12, 20) = \) ____________
(14) \( 2\text{ft.} \times 3\text{ft.} \times 4\text{ft.} = \) ____________ cubic yards
(15) \( 18\% \text{ of } 22 = \) ____________ (decimal)
(16) \( \text{CLXXII} = \) ____________ (Arabic Numeral)
(17) A 4-element set has ____________ subsets
(18) \( 12\% \text{ of } 12 = \) ____________ (decimal)
(19) The GCD of 92 and 29 is ____________
*(20) \( \sqrt{8679} = \) ____________
(21) Find the smallest integer \( k, k > 1 \) such that \( 3k - 2 \)
is a prime number. ____________
(22) \( 12 \times 345 = \) ____________
(23) \( |1 - 3| - |6 + 10| + |15 - 21| = \) ____________
(24) \( (11 + 23 \times 9 - 17) \div 4 \) has a remainder of ______
(25) \( 113_b = \) ____________
(26) \( 45 \) is \( 2\frac{1}{2} \% \) of ____________
(27) The slope of the line through the points \((5, -3)\) and \((2, 1)\) is ____________
(28) \( \frac{3}{5} + \frac{2}{3} = \) ____________ (mixed number)
(29) \( 115\% \text{ of } 15 = \) ____________
*(30) \( 41 \times 42 + 43 \times 40 = \) ____________
(31) If \( \frac{a}{7} \) has a remainder of 5 and \( \frac{b}{7} \) has a remainder of 2, then \( \frac{ab}{7} \) has a remainder of ____________
(32) The larger root of \( x^2 - 7x - 12 = 0 \) is ______
(33) Let \( x = 3, y = 2x, \) and \( z = x - y. \) Find \( xyz. \) ____________
(34) If \( \sqrt{125} - \sqrt{45} = \sqrt{x}, \) then \( x = \) ____________
(35) \( \{T, M, S, C, A, 2, 0, 1, 3\} \) has ____________ proper subsets
(36) A square has a diagonal of \( 4\sqrt{2} \) cm. The perimeter
of the square is ____________ cm.
(37) If 6 pears cost \$1.32, then 9 pears cost \$ ______
(38) \( 45 \times 85 = \) ____________
(39) \( 15^2 + 45^2 = \) ____________
*(40) \( 43 \times 54 \times 65 = \) ____________
(41) \( \frac{3!}{4! + 2!} = \) ____________
(42) The leg opposite the \( 45^\circ \) angle in a right triangle
is \( 3\sqrt{2}. \) The hypotenuse is ____________
(43) If \( P \) is \( \frac{2}{3} \) of \( Q \) and \( Q \) is \( 33\frac{1}{3}\% \) of \( R, \) then \( P \) is what
percent of \( R? \) ____________ %
The units digit of 17 is
If \( 8^x = 40 \) then \( 8^{(x+1)} = \)
\[
\frac{5}{8} - \frac{54}{89} =
\]
Find \( k \) if the product of the roots of \( x^2 + 2x + k = 0 \) is 8. \( k = \)
\[
66 \div .75 =
\]
60 miles per hour = ______ feet per second
\[
2142.857 \times 213 =
\]
\((2 - 5i)(3 - 4i) = a + bi. \) Find \( a - b. \)
The point \((-2, -4)\) is reflected over the \( y \)-axis to the point \((h, k)\). Find \( k. \)
\[
1 - 4 + 9 - 16 + 25 - 36 + \ldots - 64 =
\]
The simplified coefficient of the 4th term in the expansion of \( (2x - y)^5 \) is
If \( y \) varies directly with \( x^2 \) and \( y = 8 \) when \( x = 2, \) find \( y \) when \( x = 5. \)
\[
135 \times 152 =
\]
For what value of \( k \) does the sum of the roots of \( x^2 + kx + 12 = 0 \) have a value of 6?
\[
A \) sector of a circle with a radius \( 8'' \) and central angle \( \frac{\pi}{4} \) has arc length \( k\pi''. \) \( k = \)
\[
\sin\left(\frac{-\pi}{6}\right) \times \cos\left(\frac{\pi}{3}\right) =
\]
\(*\)
\[
32^3 =
\]
\[
2 \cos^2(15^\circ) - 1 =
\]
\[
\cos\left[\sin^{-1}\left(\frac{\sqrt{3}}{2}\right)\right] =
\]
\[
56^2 - 55^2 + 54^2 - 53^2 =
\]
If \( A = 1.2B \) and \( A = 2C \) then \( B = \ldots \) \% of \( C \)
\[
\log_4 27 \div \log_4 3 =
\]
Truncate \((5\sqrt{2} + 4\sqrt{3})\) to the nearest whole number.
\[
\cos(\sec^{-1} 2.5) =
\]
\[
\ln(e^4) + \ln(e^9) \div \ln(e^3) =
\]
\[
26^9 \div 69 =
\]
\(*\)
\[
2x^3 =
\]
If \( f(x) = 3x^2 - 1 \) and \( g(x) = 2x - 3, \) then find \( f(g(4)). \)
\[
\int_{-1}^{1} x^3 \, dx =
\]
\[
\sum_{1}^{3} (-x)^2 =
\]
Find the slope of the line tangent to \( y = 3x^2 \) at the point \((1, 3). \)
\[
\int_{2}^{3} x^2 \, dx =
\]
Change .63 base 7 to a base 10 fraction.
\[
\lim_{x \to 0} \frac{2 - \sqrt{4+x}}{x} =
\]
If \( f(x) = .5x^2 - 3x + 1, \) then \( f'(2) =
\]
Find the maximum product of \( x \) and \( y \) if \( x + y = 22, \) and \( x, y > 0. \)
\(*\)
\[
624 \) miles is equivalent to \ldots \) rods