(1) 12 × 22 + 16 × 22 = ____________________________
(2) 15 × 28 = ____________________________
(3) 4321 + 1234 = ____________________________
(4) \[ \frac{22}{25} = \] %
(5) 2013 − 201 + 13 = ____________________________
(6) 244 × 25 = ____________________________
(7) 2013 − 201 + 13 = ____________________________
(8) 2080 + 7020 = ____________________________
(9) 61 × 16 = ____________________________
*(10) 75 + 236 − 4198 = ____________________________
(11) 65 × 75 = ____________________________
(12) 11235813 ÷ 6 has a remainder of ___________
(13) The mean of 17, 22, and 36 is ___________
(14) \[ \frac{2}{5} - \frac{4}{7} = \] (mixed number)
(15) 634 ÷ 5 = ____________________________ (mixed number)
(16) The mean of 34, 41, and 51 is ___________
(17) 0.13125 = ____________________________ % (mixed number)
(18) \[ 18^\prime \times 24^\prime \times 30^\prime = \] cu. ft.
(19) The sum of the prime numbers less than or equal to 13 is ____________________________
*(20) 412 × 398 − 3000 = ____________________________
(21) \[ \frac{41}{4} \times 8\frac{1}{4} = \] ____________________________
(22) If one dozen eggs cost $2.40, then 2.5 dozen eggs cost $ ____________________________
(23) 246531 ÷ 9 has a remainder of ___________
(24) The 6th hexagonal number is ___________
(25) 1 + 3 + 5 + \ldots + 33 = ____________________________
(26) 0.222\ldots − 0.444\ldots − 0.666\ldots = ___________
(27) If today is April 15, 2001 then 18 days ago was March ___________ , 2001.
(28) 36 ÷ 75 = ____________________________ (decimal)
(29) \[ 38^2 - 34^2 = (2) \times ( \) ____________________________ \)
*(30) 421456 ÷ 1111 = ____________________________
(31) If x = 7 and y = 2, then \[ (x - y)(x^2 + xy + y^2) = \]
(32) 24^2 + 8^2 = ____________________________
(33) One dozen peaches cost $12.84, therefore 4 peaches would cost $ ____________________________
(34) The cube root of 681472 is ___________
(35) How many positive integers less than 18 are relatively prime to 18? ___________
(36) If \[ x^2 + 22^2 = 27^2 , \] then \[ x^2 = \] ____________________________
(37) \[ -2(-3) - (-4) + [-6 - (-7)] = \] ____________________________
(38) \[ \frac{2}{5} \times \frac{2}{5} = \] ____________________________ (mixed number)
(39) \[ 1.3444\ldots = \] ____________________________ (mixed number)
*(40) 21^4 = ____________________________
(41) 17^2 + 69^2 = ____________________________
(42) 29 \times 33 + 4 = ____________________________
(43) A square is to a hexagon as an octagon is to a polygon of ___________ sides.
(44) \( (2! + 3!) \div 5! = \) _______________

(45) Find the units digit of \( 23^{233} \). _______________

(46) The largest integer \( x \) such that \( 3 + 2x < 15 \) is ____________

(47) If \( 8^x = 40 \) then \( 8^{(x+1)} = \) _______________

(48) The \( y \)-intercept of \( 6x - 2y = 8 \) is \((x, y)\). \( y = \) _______________

(49) If \( A \) is 25\% more than \( B \) and \( B \) is 25\% more than \( C \), then \( A \) is what % more than \( C \)? ____________ %

*(50) \( 364 \times 16^3 \div 4^3 = \) _______________

(51) The \( x \)-intercept farthest to the left for \( f(x) = 3x^2 - 27 \) is \((x, 0)\) and \( x = \) _______________

(52) Given the sequence 3, 8, 11, 19 \ldots , 79, k, 207.

Find \( k \). _______________

(53) \( 53 \times 53 + 50 \times 50 - 3 \times 3 = \) _______________

(54) The simplified coefficient of the \( x^2 y \) term in the expansion of \((x - 3y)^3\) is ______________

(55) \( sC_4 = \) _______________

(56) \((i)^{32} = \) _______________

(57) Let \( \frac{8!}{6!} = \frac{x!}{(x-1)!} \), then \( x = \) _______________

(58) Let \( a^3b^2 \times ab^{-1} \div \left( \frac{a}{b} \right)^2 = a^m b^n \). Find \( m + n \). _______________

(59) \((4 - 7i)(4 + 7i) = a + bi \). Find \( a + b \). _______________

*(60) \( (3.1\pi)(2.7e) \left( \frac{1 + \sqrt{5}}{2} \right) = \) _______________

(61) \( 2 \cos^2(15^\circ) - 1 = \) _______________

(62) If \( f(x) = 4x - 5 \), then \( f[f^{-1}(3)] = \) _______________

(63) The greatest integer function \( g(x) = \lceil 2x - 3 \rceil \) has a value of _______________ for \( g(\pi) \)

(64) If \( \log_3 x = -3 \) then \( x^{-1} = \) _______________

(65) If flipping 5 coins, what is the probability of getting 3 tails and 2 heads? _______________

(66) The harmonic mean of the roots of \( x^3 + Bx^2 + 3x + D = 0 \) is 4. Find \( D \). _______________

(67) \( \det \left( \begin{array}{cc} 1 & -2 \\ 3 & -4 \end{array} \right) + \begin{array}{cc} 1 & 2 \\ -3 & -4 \end{array} \right) = \) _______________

(68) \( (x^3 - 2x^2 + 4x - 6) \div (x - 2) \) has a remainder of _______________

(69) A bag has 3 red, 6 white, and 9 blue marbles. What is the probability of drawing a red one? _______________

*(70) \( 31.4 \times 27.2 \times 16.2 = \) _______________

(71) The 8th octagonal number is _______________

(72) \( \begin{bmatrix} 3 & 1 \\ 2 & 2 \end{bmatrix} \times \begin{bmatrix} 2 & 1 \\ 4 & 1 \end{bmatrix} = \begin{bmatrix} a & b \\ c & d \end{bmatrix} \), then \( b = \) _______________

(73) The 6th hexagonal number is _______________

(74) The 6-th hexagonal number minus 1 is _______________

(75) The volume of a circular cylinder with height 5 in. and diameter 3 in. is \( k\pi \) cu. in. and \( k = \) _______________

(76) \( (x^3 - 2x^2 + 4x - 1) \) divided by \((x - 2)\) has a remainder of _______________

(77) The greatest integer function is \( f(x) = \lfloor x \rfloor \). Find \( f[2\sqrt{3} - \pi] \). _______________

(78) \( \sum_{k=1}^{3} (-k)^k = \) _______________

(79) If \( f(x) = 5 - \frac{4x + 3}{2} \), then \( f^{-1}(-1) = \) _______________

*(80) \( 798 \div \frac{44}{9} \times .25 = \) _______________