(1) 2010 ÷ 5 = 

(2) $33^2 =$ 

(3) 5183 − 2015 = 

(4) 242 ÷ 9 = 

(5) $3.2 \times 2.3 =$ (decimal) 

(6) $\frac{8}{9} + \frac{10}{11} =$ (mixed number) 

(7) 21 × 12 = 

(8) 1234 ÷ 9 = (mixed number) 

(9) 3 × 6 − 9 + 4 ÷ 2 = 

*(10) 308 + 2015 + 5102 + 513 = 

(11) The additive inverse of $-\frac{1}{3}$ is 

(12) The GCD of 28 and 82 is 

(13) Which is larger: $\frac{9}{13}$ or $\frac{7}{17}$? 

(14) DCIX = (Arabic Numeral) 

(15) Which is smaller: $\frac{7}{17}$ or $\frac{9}{19}$? 

(16) If 1 gram = .04 oz., then 4 oz. = grams 

(17) The greatest prime number less than 99 is 

(18) 2 + 5 + 8 + ... + 29 = 

(19) $43^2 =$ 

*(20) 1357 × 2468 = 

(21) How many integers between 7 and 59 are divisible by 8? 

(22) If $f(x) = 4x^2 + 28x + 49$ then $f(19) =$ 

(23) 160 plus 70% of 160 is 

(24) If $A = 1$, $B = -A$, and $C = A - B$, then $ABC =$ 

(25) The slope of the line $6x + y = 2$ is 

(26) The number of positive integral divisors of 48 is 

(27) If $x + y = 5$ and $y - x = 3$, then $y =$ 

(28) If $x + 5 = 4$, then $x - 3 =$ 

(29) $9\frac{1}{3} \times 3\frac{1}{3} =$ (mixed number) 

*(30) 12 × 24 × 36 = 

(31) The next term in the geometric sequence, ..., \( \frac{2}{5}, \frac{1}{4}, \frac{5}{32}, \ldots \) is 

(32) $15\frac{1}{5} \times 5\frac{1}{5} =$ 

(33) 45 × 85 = 

(34) 14 × 212 = 

(35) $\frac{a}{b}$ has a remainder of 4; $\frac{b}{a}$ has a remainder of 5; $\frac{ab}{6}$ has a remainder of 

(36) $63^2 + 24^2 =$ 

(37) If $|2x - 4| = 10$ and $x < 0$, then $x =$ 

(38) The sum of the roots of $2x^2 - 3x + 1 = 0$ is 

(39) The product of the roots of 

$(2x - 3)(x - 6) = 0$ is 

*(40) 47961 ÷ 219 = 

(41) The smallest leg of a right triangle with integral sides is 7”. The hypotenuse is inches 

(42) If $7^x = 24$, then $7^{(x-1)} =$ 

(43) If $a^3 \times a^4 \div a^5 = a^k$, then $k =$ 

(44) The length of an arc formed by a central angle of $60^\circ$ is $4\pi$. The radius of the circle is
45) \( \frac{7}{12} - \frac{27}{49} = \) 

46) The sum of the product of the roots taken three at a time of \( x^4 - 2x^3 - 13x^2 + 14x = -24 \) is ___

47) If \( 8(x+1) = 24 \), then \( 8(x+2) = \) 

48) If \( \sqrt{4x-11} = 5 \) then \( x = \) 

49) Find the units digit of \( 13^7 \). 

*(50) \( 24^3 \times 21^2 \div 4^4 = \) 

51) The largest palindrome less than 402 is ___ 

52) The number of distinct diagonals of a convex decagon is ___

53) \( 5P_2 - 5C_3 = \) 

54) The radius of the circle \( x^2 + y^2 = 25 \) is ___

55) The smaller root of \( 5x^2 - 7x - 6 = 0 \) is ___

56) \( 81 + 54 + 36 + 24 + \ldots = \) 

57) Set \( P \) has 3 elements. The Cartesian product of set \( P \) and \( Q \) contains 12 ordered pairs. How many elements are in \( Q? \) ___

58) \( 44_8 \times 4_8 = \) 

59) \( \sin \left( \frac{5\pi}{4} \right) \times \cos \left( \frac{5\pi}{4} \right) = \) 

*(60) \( 26 \times 35 + 24 \times 75 = \) 

61) \( \cdot75\pi \) radians = ___ degrees

62) \( 83^2 = \) 

63) \( 2\sin 15^\circ \cos 75^\circ = \) 

64) The greatest integer function \( f(x) = \lfloor x^2 \rfloor \) has a value of ___ for \( f(e) \)

65) On the graph \( y = 3\cos(x-2)+4 \), the vertical shift is ___

66) If \( \ln(12) = \ln(4) + \ln(27) \), then \( k = \) 

67) \( \frac{5!}{2! + 3!} \equiv x \pmod{7} \), and \( 0 \leq x \leq 6 \). \( x = \) 

68) \( (\sin 135^\circ)(\cos 135^\circ)(\tan 135^\circ) = \) 

69) \( (10 + 7)^2 + (10^2 - 7^2) = \) 

*(70) \( \pi^3 \times 111 = \) 

71) If \( f(x) = 5x^3 + 4x^2 \), then \( f''(-2) = \) 

72) \( \int_{-1}^{1} x^3 \, dx = \) 

73) \( i^{66} = \) 

74) If \( f'(x) = 4x \), \( f(x) = ax^2 + b \), find \( a \). ___

75) \( 2^3 + 3^3 + 4^3 - 5^3 = \) 

76) \( \lim_{x \to \infty} \frac{(2x+1)(x-4)}{(x+3)(3x+1)} = \) 

77) The largest value of \( k \) such that \( 6C_k = 15 \) is ___

78) \( \lim_{x \to 3} \frac{x^2 + x - 1}{x - 3} = \) 

79) \( 16 \times 625 = \) 

*(80) \( 15 \times 31 + 16 \times 32 = \) 

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