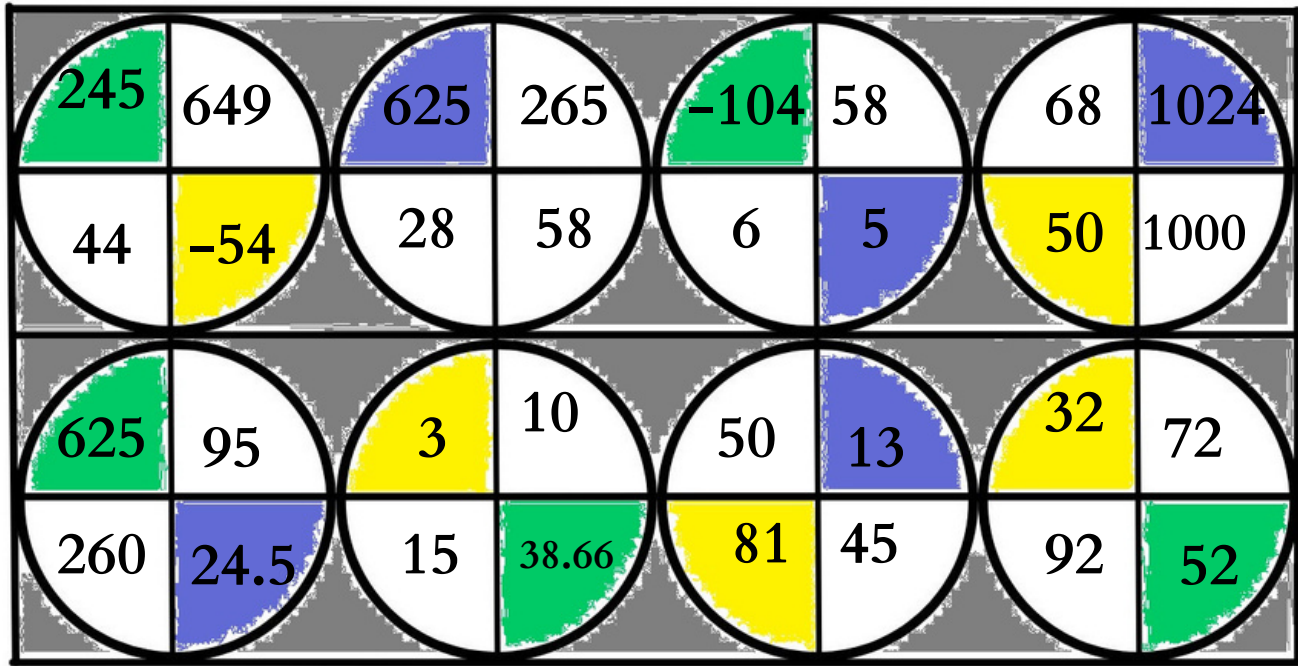


Answers



$$1. \quad m(h) = (h^{h-2})(h^{6-h})$$

$$m(5) = (5^{5-2})(5^{6-5})$$

$$= 5^3 \times 5^1 = 125 \times 5 = 625$$

$$2. \quad a(b) = (5^b - b^2) \cdot b^{-1}$$

$$a(3) = (5^3 - 3^2) \cdot 3^{-1}$$

$$= (125 - 9) \times \frac{1}{3}$$

$$= 116 \times \frac{1}{3} = 38.66$$

$$3. \quad p(q) = 26q$$

$$p(2) = 26 \times 2 = 52$$

$$4. \quad a(b) = 5b^{b-5}$$

$$a(7) = 5 \times 7^{7-5}$$

$$= 5 \times 7^2$$

$$= 5 \times 49 = 245$$

$$5. \quad p(q) = 4q^2 + 9q$$

$$p(-8) = 4(-8)^2 + 9(-8)$$

$$= -32 + (-72)$$

$$= -32 - 72 = -104$$

$$6. \quad f(x) = (x^{(x+7)})^2$$

$$f(-5) = (-5^{(-5+7)})^2$$

$$= (-5^{(2)})^2$$

$$= (-5^4) = 625$$

$$7. \quad a(b) = (b^b + 3)^b \div 2$$

$$a(2) = (2^2 + 3)^2 \div 2$$

$$= (4+3)^2 \div 2$$

$$= 49 \div 2 = 24.5$$

$$8. \quad y(z) = 2^{4z - 2z + 1}$$

$$y(4) = 2^{4(4) - 2(4) + 1}$$

$$= 2^{16 - 8 + 1} = 2^9$$

$$= 1024$$

$$9. \quad a(b) = b^b \div b^2 \cdot b^2$$

$$a(5) = 5^5 \div 5^2 \cdot 5^2$$

$$a(5) = 3125 \div 5^{2+2}$$

$$= 3125 \div 5 = 3125 \div 5^4$$

$$= 3125 \div 625 = 5$$

$$10. \quad n(m) = 13m^2 \div m^2$$

$$n(-4) = 13(-4)^2 \div (-4)^2$$

$$= 13 \times 16 \div 16$$

$$= 208 \div 16 = 13$$

$$11. \quad a(b) = 2b + 7b$$

$$a(-6) = 2(-6) + 7(-6)$$

$$= -12 + (-42) = -12 - 42$$

$$= -54$$

$$12. \quad m(n) = (n^{n-1})(n^{2-n})$$

$$m(3) = (3^{3-1})(3^{2-3})$$

$$= (3^2)(3^{-1})$$

$$= 9 \times \frac{1}{3} = 3$$

$$13. \quad y(z) = (z^{(z+5)})^2$$

$$y(-3) = (-3^{(-3+5)})^2$$

$$= (-3^2)^2 = -3^{(2 \times 2)} = -3^4$$

$$= 81$$

$$14. \quad a(b) = b^2 - \frac{5}{10}b^2$$

$$a(10) = 10^2 - \frac{5}{10}(10 \times 10)$$

$$= 100 - 5(10)$$

$$= 100 - 50 = 50$$

$$15. \quad m(n) = 2^{2n+1}$$

$$m(2) = 2^{2(2)+1}$$

$$m(2) = 2^5 = 32$$