

$$2 + 2^2 + 2^3 + 2^4 + \dots + 2^n = 510$$

$$2 + 4 + 8 + 16 + 32 + 64 + 128 + 2^n = 510$$

$$254 + 2^n = 510$$

$$2^n = 256$$

$$2^8 = 128 \times 2$$

$$\log_2 2^n = \log_2 256$$

$$n = \log_2 256$$

$$n = 8$$

$$a_1 + a_2 = 10$$

$$d(n+2) - a(n) = 3$$

$$0 + 2 + 3 + \dots + 8$$

$$a_1 + (a_1 + d) = 10$$

$$d(n+2) - a(n) = 3$$

$$a_1 + (a_1 + d) + (a_1 + 2d) + (a_1 + 3d)$$

$$2a_1 + d = 10$$

$$2d = 3$$

$$2a_1 + \frac{3}{2} = 10$$

$$d = \frac{3}{2}$$

$$2a_1 = 10 - \frac{3}{2} = \frac{17}{2}$$

$$a_1 = \frac{17}{4}$$

$$40a_1 + 780d = 40 \left(\frac{17}{4}\right) + \frac{3 \cdot 40}{2}$$

$$= 170 + 1170$$

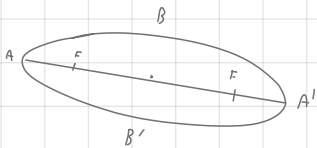
$$1170$$

$$170$$

$$1340$$

y b o j a d v h

$$\frac{(x-3)^2}{9} + \frac{(y-5)^2}{25} = 1$$



$$(h, k) = (3, 5)$$

$$a = 3$$

$$b = 5$$

$$c = \sqrt{25 - 9} = 4$$

$$F_1(3, 9) \quad F_2(3, 1)$$

$$F_1(3, 9)$$

$$F_2(3, 1)$$

$$m = \frac{4}{5}, \quad y - 5 = \frac{4}{5}x$$

$$2y - 15 = 4x$$

$$4x - 3y + 15 = 0$$

$$\frac{12 - 3 + 15}{5} = \frac{24}{5}$$

$$\frac{4(3) - 3(1) + 15}{5} = \frac{24}{5}$$

$$ab = 30(600) = 30000$$

$$N = 40$$

$$\frac{190+1}{2} = 95.5$$

$$\frac{20-62}{2} = -21$$

$$\frac{60+62}{2} = 61$$

$$\frac{51}{8}$$

9

$$f(x) = 3x + 1$$

$$(f \circ g)(x) = 3x^2 + 1$$

$$f(g'(x)) = 3x^2 + 1$$

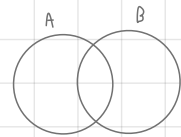
$$9\% \text{ } 800 \text{ } \text{ } 40\%$$

$$100 \quad 140$$

$$800 \quad \frac{140}{100} \times 800 = 1120$$

$$1120 \quad \frac{140}{100} \times 1120 = 1568$$

$$1568 \quad \frac{140}{100} \times 1568 = 2240$$



$$n[(A-B) \cup (B-A)] = 120$$

$$n[(A \cup B) - (A \cap B)] = 120$$

$$n(A \cap B) = x$$

$$n(A) = 4x$$

$$n(B) = 8x$$

$$3x + 7x = 120$$

$$x = 12$$

$$120$$

$$12$$

$$132$$

