







2020 = 20

2021 + 2022



212 + 210 + 202

(22)

$+$

(2)

$+$

20

by

(1)





2021 + 202

$$\frac{(2^2 + 2^2 + 2^2 + 2^1 + 2^0 + 2^1 + 2^0)^2}{2}$$

$$2^4 + 2^3 2^1 + 2^0 + 2^3 + 2^0 \text{ by } (2)$$





22

+

22

+

21

+

202

$$\begin{aligned}
 & (2^3)^2 + 2 \cdot 2^3 2^2 + 2^1 + 2^0 \\
 & (2^2 + 2^1 + 2^0)^2
 \end{aligned}$$

$$2^6 + 2^4(2^2 + 2^1 + 2^0) + \frac{2^5 + 2^4 + 2^0}{2} \ln(2)$$

$$\begin{aligned}
 & (20 + 20) + (25 + 25) + (25 + 20) \\
 & \quad + (25 + 20) + (25 + 20)
 \end{aligned}$$



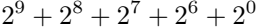


22+22+22+22+22

$$\frac{(2^4)^2 + 2 \cdot 2^4(2^3 + 2^2 + 2^1 + 2^0) + (2^3 + 2^2 + 2^1 + 2^0)^2}{2}$$

$$2^8 + 2^5 (2^3 + 2^2 + 2^1 + 2^0) + \underline{2^7 + 2^6 + 2^5 + 2^0} \text{ by (4)}$$

$$(28+28)(27+26)(25+26)(25+20)$$





$$25 + 24 + 23 + 22 + 21 + 20 + 2$$

$$(2^5)^2 + 2 \cdot 2^5 (2^4 + 2^3 + 2^2 + 2^1 + 2^0) + (2^4 + 2^3 + 2^2 + 2^1 + 2^0)^2$$

$$2^{10} + 2^6 (2^4 + 2^3 + 2^2 + 2^1 + 2^0) + \underline{2^9 + 2^8 + 2^7 + 2^6 + 2^0} \text{ by (5)}$$

$$(2^{10} + 2^{10}) / (2^9 + 2^8 + 2^7 + 2^6) + (2^9 + 2^8 + 2^7 + 2^6) / 2^0$$

$$211 + 210 + 20 + 27 + 20$$



1992-93

$$\sqrt{2^n + 2^{n-1} + \dots + 2^0} = \sqrt{2^{n+1} + 2^n + \dots + 2^0}.$$















A pixelated, black and white image of the mathematical expression $2n + 1 + 2n + 2 + 2n + 2$. The characters are rendered in a simple, blocky font. The expression consists of the number 2, the variable n, a plus sign, the number 1, a plus sign, the number 2, the variable n, a plus sign, the number 2, a plus sign, the number 2, the variable n, a plus sign, the number 2, and the variable n. The image is set against a white background.

$$(2^{n+1})^2 + 2 \cdot 2^{n+1} (2^n + 2^{n-1} + \dots + 2^0) + (2^n + 2^{n-1} + \dots + 2^0)^2$$

$$2^{2(n+1)} + 2^{n+2}(2^n + 2^{n-1} + \dots + 2^0) + \underline{2^{2n+1} + 2^{2n} + \dots + 2^{n+2} + 2^0} \quad \text{by (7)}$$

$$\left(2^{2(n+1)} + 2^{2(n+1)} \right) + \left(2^{2n+1} + \dots + 2^{n+2} \right) + \left(2^{2n+1} + \dots + 2^{n+2} \right) + 2^0$$

$$22(n+1)+1+22(n+1)+2+22(n+1)+2$$