FORMULAS

'The laws of nature are but the mathematical thoughts of God.'
Euclid

FORMULA No.

W33

••••

'No other science boosts the faith in the strength of the human spirit like mathematics.'
Hugo Steinhaus

1 WEEK = 7 DAYS = 7 FORMULAS

NEW MATHEMATICAL FORMULA DAILY

FORMULAS

'The laws of nature are but the mathematical thoughts of God.'
Euclid
●●●●

'No other science boosts the faith in the strength of the human spirit like mathematics.'
Hugo Steinhaus

$$k \in N$$
$$p_k \ (k\text{-th prime number})$$

$$\sum_{k=1}^{k=\infty} \frac{(p_k^2 \times p_{k+1}^2 + p_{k+1}^2 - p_k^2) \times k^2 + 2 \times (p_k^2 + 1) \times p_{k+1}^2 \times k + (p_k^2 + 1) \times p_{k+1}^2}{k^2 \times (k+1)^2 \times p_k^2 \times p_{k+1}^2} = \frac{2 \times \pi^2 + 3}{12}$$

NEW MATHEMATICAL FORMULA DAILY

In memory of Justynka, my wife

FORMULAS

'The laws of nature are but the mathematical thoughts of God.'
Euclid
●●●●

FORMULA No.

D332

'No other science boosts the faith in the strength of the human spirit like mathematics.'
Hugo Steinhaus

$$k \in N$$

$$\sum_{k=1}^{k=\infty} \frac{25 \times k^4 + 145 \times k^3 + 399 \times k^2 + 649 \times k + 441}{(5 \times k + 2) \times (5 \times k + 7) \times (k + 2)^2 \times (k + 3)^2} = \frac{2 \times \pi^2 - 15}{12}$$

NEW MATHEMATICAL FORMULA DAILY

FORMULAS

'The laws of nature are but the mathematical thoughts of God.'
Euclid
●●●●

'No other science boosts the faith in the strength of the human spirit like mathematics.'
Hugo Steinhaus

$$k \in N$$

$$\sum_{k=1}^{k=\infty} \frac{(100 \times k^5 + 200 \times k^4 + 261 \times k^3 + 301 \times k^2 + 164 \times k + 24) \times (2 \times k)!}{(k+1)^2 \times (2 \times k + 1) \times (2 \times k + 3) \times (5 \times k - 4) \times (5 \times k + 1) \times k!^2 \times 2^{4 \times k + 3}} = \frac{\pi - 3}{3}$$

NEW MATHEMATICAL FORMULA DAILY

In memory of Justynka, my wife

FORMULAS

'The laws of nature are but the mathematical thoughts of God.'
Euclid ●●●●

FORMULA No.

D334

'No other science boosts the faith in the strength of the human spirit like mathematics.'
Hugo Steinhaus

$$k \in N$$
$$p_k \text{ (k-th prime number)}$$

$$\sum_{k=1}^{k=\infty} \frac{(p_k \times p_{k+1} + p_{k+1} - p_k) \times k^2 + 2 \times (2 \times p_k \times p_{k+1} + 2 \times p_{k+1} - p_k) \times k + (4 \times p_k \times p_{k+1} + 4 \times p_{k+1} - p_k)}{(k+1)^2 \times (k+2)^2 \times p_k \times p_{k+1}} = \frac{4 \times \pi^2 - 21}{24}$$

FORMULAS

'The laws of nature are but the mathematical thoughts of God.'
Euclid
●●●●

'No other science boosts the faith in the strength of the human spirit like mathematics.'
Hugo Steinhaus

$$k \in N$$

$$\sum_{k=1}^{k=\infty} \frac{4 \times k^4 + 24 \times k^3 + 81 \times k^2 + 176 \times k + 144}{(k+2)^2 \times (k+3)^2 \times (k+4)^2 \times (2 \times k + 1) \times (2 \times k + 3)} = \frac{6 \times \pi^2 - 59}{18}$$

NEW MATHEMATICAL FORMULA DAILY

FORMULAS

'The laws of nature are but the mathematical thoughts of God.'
Euclid
●●●●

'No other science boosts the faith in the strength of the human spirit like mathematics.'
Hugo Steinhaus

$$k \in N$$

$$\sum_{k=1}^{k=\infty} \frac{256 \times k^4 - 128 \times k^3 - 832 \times k^2 - 472 \times k - 693}{(4 \times k - 1) \times (4 \times k + 3) \times (16 \times k^2 - 121) \times (16 \times k^2 - 49)} = \frac{\pi}{72}$$

NEW MATHEMATICAL FORMULA DAILY

FORMULAS

'The laws of nature are but the mathematical thoughts of God.'
Euclid ●●●●

'No other science boosts the faith in the strength of the human spirit like mathematics.'
Hugo Steinhaus

$$\sum_{k=1}^{k=\infty} \frac{1}{4 \times (2 \times k - 1)^2 - 529} = -\frac{\pi}{184} \qquad k \in N$$

NEW MATHEMATICAL FORMULA DAILY

We invite you every week and every day to our website www.and-just-math.com