



Number Nest Weekly Challenge

Activity

Complete the puzzle by using the hints for each row and column.

¹ 7	² 1			³ 5	⁴ 3			⁵ 4	⁶ 8
⁷ 6	² 2			⁸ 9	³ 3		⁹ 3	⁶ 6	⁶ 6
¹⁰ 7	³ 3	¹¹ 5	¹² 7		¹³ 6	¹⁴ 4	⁹ 9		
		¹⁵ 7	⁵ 5	¹⁶ 2		¹⁷ 1	² 2	¹⁸ 6	¹⁹ 9
	²⁰ 9	⁴ 4		²¹ 2	²² 8			²³ 3	³ 3
²⁴ 2	¹ 1			²⁵ 4	³ 3		²⁶ 3	⁶ 6	
²⁷ 7	⁰ 0	²⁵ 9	²⁹ 2		³⁰ 7	³¹ 8	¹ 1		
		³² 9	⁸ 8	³³ 5		³⁴ 1	⁸ 8	³⁵ 2	³⁶ 6
³⁷ 2	³⁸ 4	⁶ 6		³⁹ 5	⁴⁰ 9			⁴¹ 6	⁵ 5
⁴² 8	⁵ 5			⁴³ 2	⁶ 6			⁴⁴ 5	⁴ 4

ACROSS

- $36 + 35$
- days from April 29 to June 21
- $40 \text{ down} \div 2$
- $24 + 38$
- $XXIX + LXIV$
- days in the year 2024
- $7 \times 1,051$
- $1,151 - 502$
- $43 \text{ across} + 726$
- 3×423
- number of dozens in 1,128
- hours in 1,680 minutes

23. minutes in 1,980 seconds

- XXI
- $387 \div 9$
- 6×6
- $4 \times 1,773$
- DCCLXXXI
- $4,925 \div 5$
- $3,522 - 1,696$
- $1,230 \div 5$
- $413 \div 7$
- LXV
- $9 \text{ across} - 281$
- $45 - 19$
- $31 + 23$

DOWN

- $3 \text{ down} \times 13$
- $37 \text{ across} \div 2$
- CLI - XCII
- months in 28 years
- $42 + 4$
- $32 + 54$
- 7×56
- $14 \text{ down} \times 14$
- $45 + 30$
- XXVIII + XIII
- $896 \div 4$
- $6 \text{ down} + 550$
- $162 - 69$
- $41 \text{ across} \times 14$

- $19 \text{ down} \times 9$
- $44 \text{ across} \div 2$
- $18 \text{ down} \div 2$
- $42 \text{ across} + 911$
- $16 \text{ down} \div 8$
- CLVI - LXXV
- hours in 23 days
- CCLXV
- $1,243 - 589$
- $6 \text{ down} - 58$
- XLV
- 8 dozen



Extra challenge



Prince Triangle was coming up to his 20th birthday. He decided he wanted the birthday to be special, so he asked his goldsmith to make him 20 gold rings.

The goldsmith made 20 rings and asked Prince Triangle's mother, Queen Triangle, for payment.

"How much do they cost?" the Queen asked.

"As they are made from real gold, they are not cheap!" replied the goldsmith, "they are £1,000,000 in total or I can do you a special offer!"

"What is the special offer?" the Queen enquired.

"Well you could pay £1 for the first ring, £2 for the second, £4 for the third, £8 for the fourth and so on, doubling the cost for each ring."

"I don't have a million pounds, so I will go with the second option!"



Did the second option save the Queen money? How much did it cost her in total?

Ring	Cost of each ring		
1	£1	11	£1024
2	£2	12	£2048
3	£4	13	£4096
4	£8	14	£8192
5	£16	15	£16 384
6	£32	16	£32 768
7	£64	17	£65 536
8	£128	18	£131 072
9	£256	19	£262 144
10	£512	20	£524 288

By adding all the individual costs of each ring, the total is £1,048,575. Therefore the Queen did not save money, she actually spent £48,575 more than if she had just paid £1,000,000.

13.05.24

