


Thursday

Kirsty cycled 25.75km, her brother cycled a further 4.125km. How far did her brother cycle? How far did they cycle altogether?

Write down five possible values of $a + b$ in these equations:

$$a + b = 8.75$$

$$a - b = 23\,985$$

$$a - 14.78 = b$$

$$a = b - b - b$$

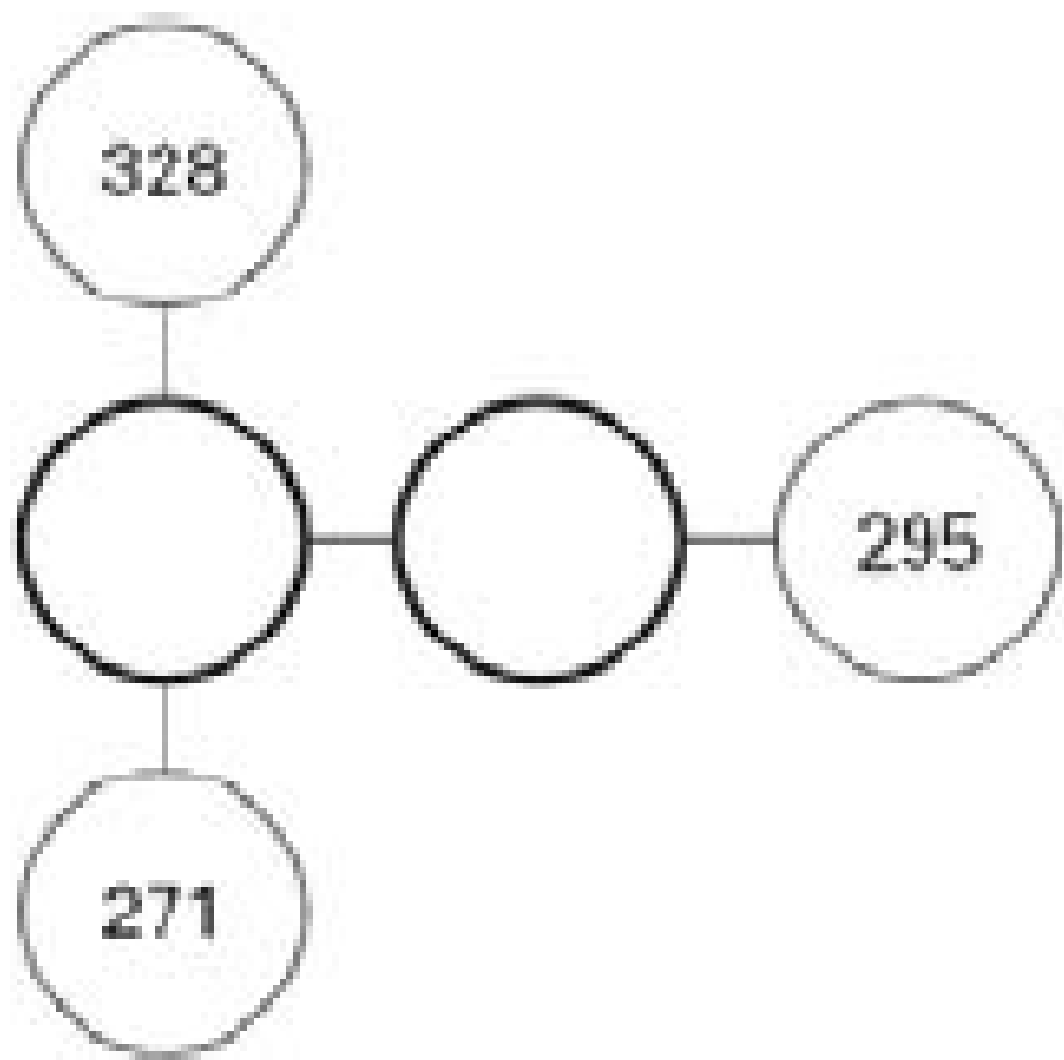
Circle two numbers which add to make 0.12

0.1 0.5 0.05 0.7 0.07 0.2

Write in the missing digits:

$$4 \square 4 + 38\square = 851$$

The three numbers on each line in the diagram add up to 763.
Write in the missing numbers.





A magazine costs one pound forty pence. I buy two of them and pay with a £5 note.
How much change should I get?

1 A ball of string is 15 m long. 4.3 m is cut off. A further 1.25 m is cut off. How much string is left?

2 A box holding 10 cans weighs 3.8 kg. The box weighs 0.2 kg. How much does each can weigh?

3 A greengrocer has seven boxes each containing 40 red apples. He also has five boxes of green apples. There are 400 apples altogether. How many green apples are there in each box?

4 Hazel buys three cards and a book for £5.34. The cards cost 45p each. How much does the book cost?

5 At 6 pm the temperature is 2°C . By midnight it has fallen 5°C . Between midnight and 6 am it rises 2°C . What is the temperature at 6 am?

B

1 Gill has 1.2 kg of flour. She uses 0.45 kg to make bread and 0.28 kg for pastry. How much flour does she have left?

2 Aaron buys four drinks at 65p each and two sandwiches at £1.35 each. How much change will he receive from £10?

3 The perimeter of a room is 21.2 metres. One wall is 4.6 m long. What is the area of the floor?

4 The temperature in London is 3°C . In Leeds it is 4° colder. In Scotland it is 3° colder than in Leeds. What is the temperature in Scotland?



5 How many minutes are there in two weeks?

C

1 A carpet costs £24 per square metre. How much will it cost to carpet a room 5 m long and 3.86 m wide?

2 Ashley won a race in 57.92 seconds. Adam was 1.48 seconds slower and Robert was 0.69 seconds behind Adam. What was Robert's time?

3 In one year in Siberia the highest temperature was 26°C and the lowest was -42°C . In London the highest temperature was 33°C and the range of temperature was one half of that in Siberia. What was the lowest temperature in London?

4 Small cans weigh 0.375 kg. Large cans weigh 0.725 kg. What is the total weight of four small and three large cans?

5 Cheese costs £4.20 for 1 kg. What does 350 g cost?

Kangaroo Subtraction

Age 11 to 14 Short ★★

In this subtraction, each of the letters K, A, N, G, R and O represents a different digit.

$$\begin{array}{r} \text{K A N} \\ - \text{G A R} \\ \hline \text{O O} \end{array}$$

What is the largest possible value of the number 'KAN'?

Answer: KAN = 864 (and GAR = 765, OO = 99)

Using column subtraction

$$\begin{array}{r} \text{KAN} \\ - \text{GAR} \\ \hline \text{OO} \end{array}$$

A - A = zero but O shouldn't be zero, so there must have been 'borrowing'/'regrouping'

$$\begin{array}{r} \text{KAN} \\ - \text{GAR} \\ \hline \text{OO} \end{array}$$

(Note: In the original image, the A in KAN and GAR is crossed out with a red X, and a red 1 is written above it, indicating borrowing from the tens place.)

$$\begin{array}{r} \text{KAN} \\ - \text{GAR} \\ \hline \text{OO} \end{array}$$

(Note: In the original image, the K in KAN is crossed out with a blue X, and a blue 1 is written above it, indicating borrowing from the hundreds place.)

In ${}^1\text{A}-1$, 1 is the tens digit
A-1 is the units digit
(10 + (A-1)) - A = O so O = 9

$$\begin{array}{r} \text{KAN} \\ - \text{GAR} \\ \hline \text{99} \end{array}$$

(Note: In the original image, the K in KAN is crossed out with a blue X, and a blue 1 is written above it. The A in KAN is crossed out with a red X, and a red 1 is written above it. The A in GAR is crossed out with a red X, and a red 1 is written above it. The result 99 is written in green.)

K-1 = G

${}^1\text{N} - \text{R} = 9$ means $10 + \text{N} - \text{R} = 9$ so $\text{R} = \text{N} + 1$

Largest possible KAN:

9 is taken so let $\text{K} = 8 \Rightarrow \text{G} = 7$

A = 6

If N = 5 then R = 6 but 6 is taken

So N = 4 and R = 5

KAN = 864

ANSWERS

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A

1 9.45 m 2 0.36 kg 3 24 4 £3.99 5 -1°C

B

1 470 g or 0.47 kg 2 £4.70 3 27.6 m^2 4 -4°C 5 20160

C

1 £463.20 2 60.09 secs. 3 -1°C 4 3.675 kg 5 £1.47