

Bronze

- 1a. True
- 2a. 1,224
- 3a. 2,422
- 1b. Kelly is incorrect because $4,664 \div 2 = 2,332$ and $2,332 > 1,120$.
- 2b. Johnny did not divide 800 by 2 correctly. $800 \div 2 = 400$ so the answer should be 3,420.
- 3b. The counter fell from the ones column; $6,336 \div 3 = 2,112$

Silver

- 4a. False, $4,812 \div 4 = 1,203$
- 5a. 401
- 6a. 477
- 4b. Alice is correct because $2,405 \div 5 = 481$, $2,979 \div 9 = 331$ and $481 > 331$.
- 5b. Josh forgot to exchange 3 tens. The correct answer is 1,916.
- 6b. The counter fell from the tens column; $8,428 \div 7 = 1,204$

Gold

- 7a. False, $6,409 \div 9 = 701$
- 8a. $5,607 \div 7 = 801$
- 9a. $8,560 \div 8 = 1,070 < 8,586 \div 6 = 1,431$
- 7b. Sinead is incorrect because $3,435 \div 5 = 687$, $6,795 \div 3 = 2,265$ and $5,848 \div 8 = 731$. Her statement should say $687 < 2,265 > 731$.
- 8b. Theo did not exchange the remaining 1 thousand into 10 hundreds or exchange the remaining 1 hundred to 10 tens. The correct answer is 1,221.
- 9b. Various answers, for example: $1,230 \div 6 = 205$; $6,000 \div 6 = 1,000$; $3,030 \div 6 = 505$

Challenge

1. Explore the ways through the maze by stepping on the 4-digit numbers that can be divided equally by 7. **Various answers, for example:**

You can move in any direction; horizontally vertically or diagonally!

START

4,284	1,284	7,285	9,198	7,234	9,673
7,382	6,398	7,357	4,485	8,337	8,565
8,347	9,674	3,267	5,796	9,386	7,924
6,461	8,879	8,575	5,395	3,892	7,383
8,734	2,954	9,098	5,957	3,898	8,227
3,891	9,677	8,834	4,384	7,824	7,394

FINISH

DF

2. Amir has won £8,472 in the lottery and wants to share it between himself and his parents.



Amir

I am going to keep all my share.



Dad

I am going to share mine so I, and those I share it with, get a portion of the money that has a digit sum of more than 9.



Mum

I am going to share mine so I, and those I share it with, get a portion of the money that is an odd 3-digit number.

Investigate how much each person will receive. **Various answers, for example:**
 Amir = £2,824; Dad and 3 friends = £706 each; Mum and 7 friends = £353 each