Bronze

1a. 18 ÷ 3 = 6 and 18 ÷ 6 = 3
2a. A = 18 and B = 36
3a. A = 7, B = 48 and C = 12
4a. A = 3, B = 2 and C = 1

1b. 21 = 5 x 4 is incorrect, because 5 x 4 = 20, not 21.
2b. Yes, Leyla is correct, because 60 ÷ 6 = 10.
3b. Leo = 25, Carly = 6 and Seb = 8

Silver

5a. 12 x 6 = 72 and 6 x 12 = 72
6a. A = 42 and B = 84
7a. A = 12, B = 8 and C = ÷
8a. A = 2, B = 3 and C = 1

4b. 42 = 6 ÷ 7 is incorrect, because 6 ÷ 7 = 0.86, not 42.
5b. Seema is incorrect, because 12 ÷ 4 = 3.
6b. Josh = 36, Seema = 9 and Archie = 6

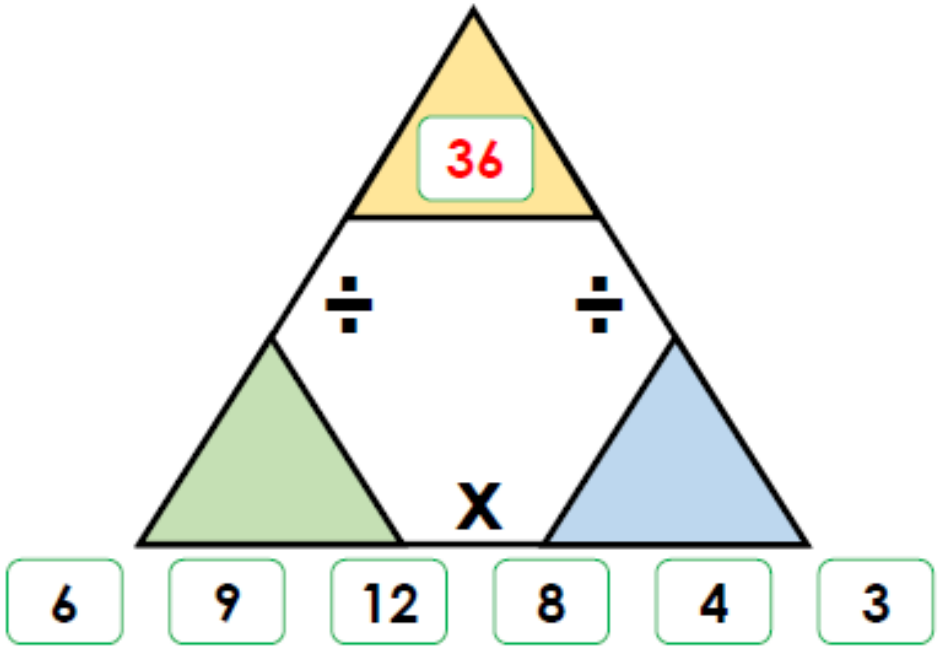
Gold

9a. 108 ÷ 9 = 12 or 108 ÷ 12 = 9
9 x 12 = 108 or 12 x 9 = 108
10a. 56cm ÷ 7 = 8cm, so each piece of ribbon is 8cm long
96cm ÷ 8 = 12 pieces of ribbon
11a. A = 12, B = 84 and x, C = 72 and x
12a. A = 1, B = 3 and C = 2

7b. 12 ÷ 9 = 108 is incorrect because 12 ÷ 9 = 1.33 and not 108, it is not part of the fact family.
8b. Danny is correct, because 16 is double 8, so the answer will be double 24, which is 48.
9b. They are thinking of 96.

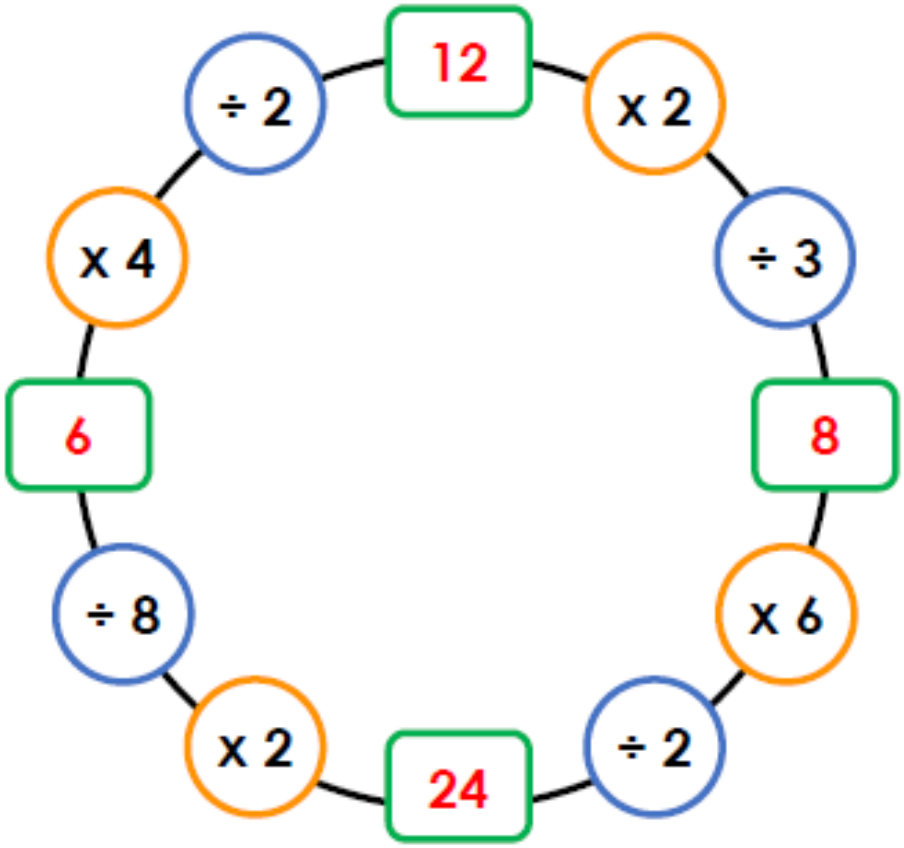
Challenge

1. Investigate different ways to complete the inverse operations triangle using the given numbers along the base. Suggest the number that could be placed in the top to give the most possibilities? Is there more than one possible answer?



Various answers, for example: 36 would be the best number to place in the top because it can be used with 3 different calculations: 6 x 6 = 36; 9 x 4 = 36; 12 x 3 = 36. 72 or 48 could each be used with 2 calculations.

2. Investigate which numbers will complete the chain in a clockwise direction.



Is there more than one solution?

Yes, for example, clockwise from top: 6, 4, 12 and 3 or 24, 16, 48 and 12