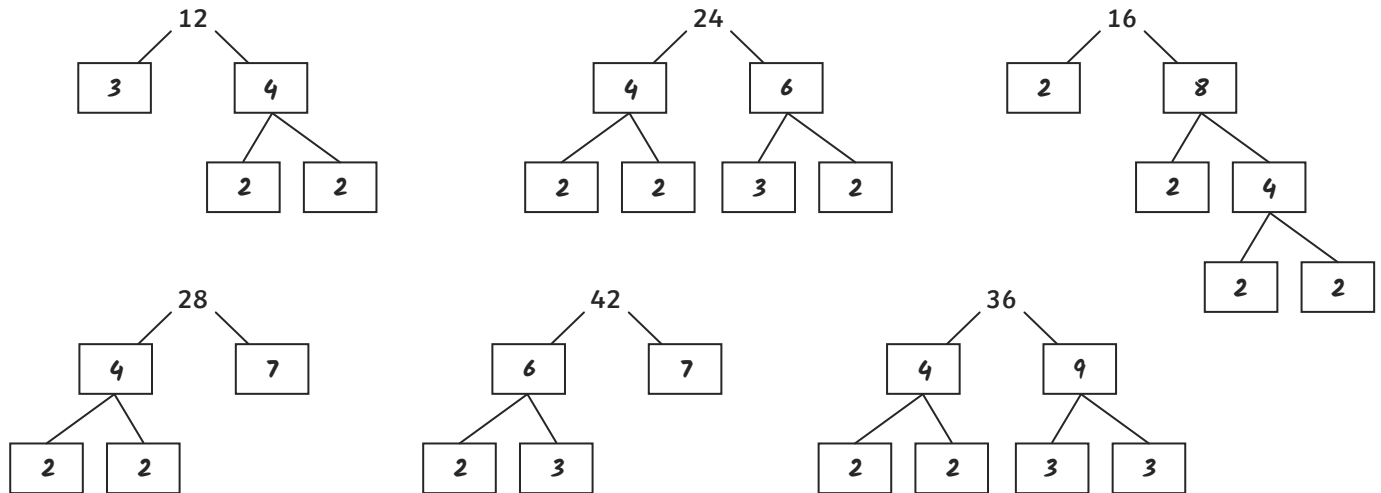




1)

- a) 2, 3, 5, 7
 b) 5, 7, 11, 13, 17, 19
 c) 17, 19, 23, 29, 31, 37, 41, 43
 d) 23, 29, 31, 37, 41, 43, 47
 e) 31, 37, 41, 43, 47, 53, 59, 61, 67
 f) 53, 59, 61, 67, 71, 73, 79, 83, 89

2) Children may find alternative intermediate steps to split a number into its factors, but the prime factors will be the answers shown.



- 1) Bethany is correct. There are 15 prime numbers between 1 and 50 (2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43 and 47) and 10 prime numbers between 50 and 100 (53, 59, 61, 67, 71, 73, 79, 83, 89 and 97).
- 2) Michael is not entirely correct. Not all prime numbers are odd: 2 is a prime number and it is even. However, he is accurate in saying that not all odd numbers are prime. For example, 15 is an odd number but it is not prime: its factors are 1, 3, 5 and 15.
- 3) Kenneth is correct. 53 and 59 fit the criteria: they are both greater than 40, less than 60 and they are both prime. Their digit sums are even: $5 + 3 = 8$ and $5 + 9 = 14$.



$13 + 40 = 53$, $17 + 42 = 59$ or $40 + 19 = 59$, $42 + 19 = 61$ or $48 + 13 = 61$, $19 + 48 = 67$ or $50 + 17 = 67$, $48 + 23 = 71$, $23 + 50 = 73$, $50 + 29 = 79$ or $62 + 17 = 79$, $29 + 54 = 83$, $54 + 35 = 89$ and $35 + 62 = 97$

