Prime Factors and Factor Trees
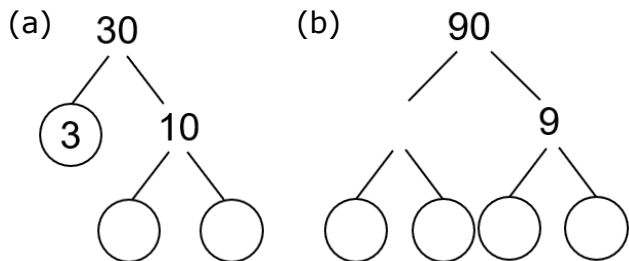
Write each of these numbers as a product of its prime factors:

(a)   6   (b)   8   (c)   15

(d)   12   (e)   14   (d)   20

Complete these factor trees:

(a)

(b)

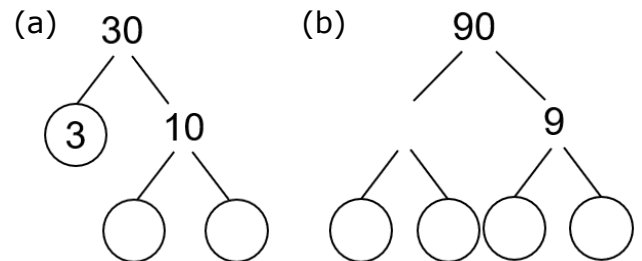By drawing a factor tree, write each of these numbers as a product of its prime factors:

(a)   56   (b)   60

(c)   75   (d)   78

(e)   80   (f)   115

As a product of its primes, what number is given by:

(a) $2 \times 5 \times 11$

(b) $3 \times 3 \times 5$

(c) $2 \times 5 \times 7$

(d) $2 \times 2 \times 3 \times 3 \times 5$

For each of these numbers, draw a factor tree and write as a product of its prime factors.

(a)   9   (b)   25   (c)   36

What do you notice?

As a product of its prime factors, $120 = 2 \times 2 \times 2 \times 3 \times 5$. How could you use this information to find all the factors of 120?