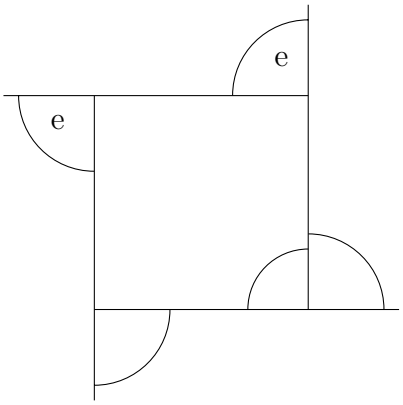
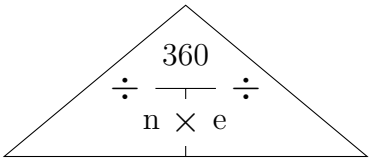
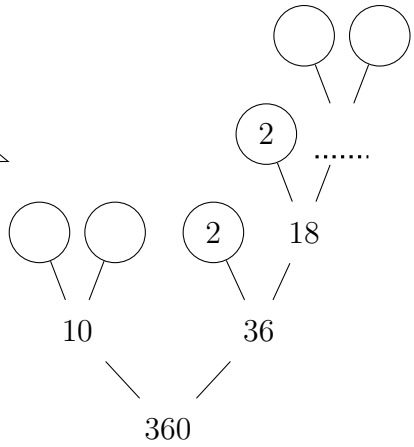
1. Here is a regular polygon, a proportional triangle and an incomplete prime factor tree.

   (i) Complete the labels of the exterior angles, e, and an interior angle, i, of the polygon.







   (ii) Complete: number of sides, n = ...

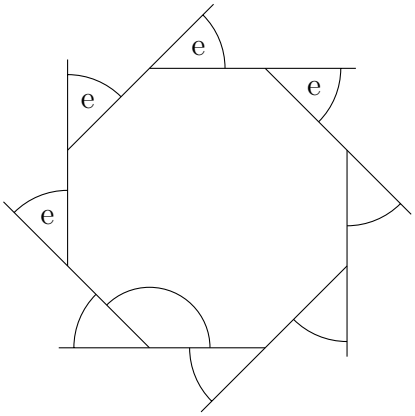
   exterior angle, e = ...°

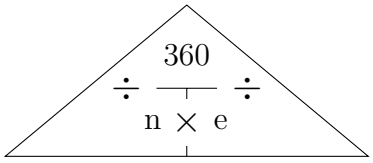
   interior angle, i = ...°

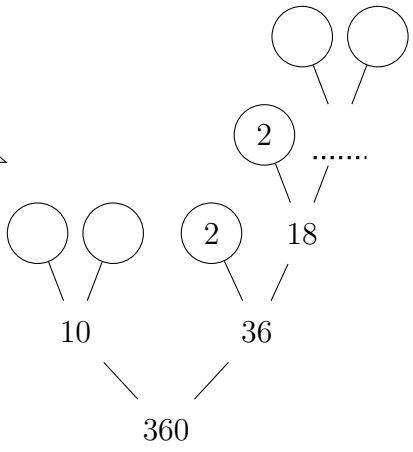
   {You may use the proportional triangle and prime factor tree}

2. Here is a regular polygon, a proportional triangle and an incomplete prime factor tree.

   (i) Complete the labels of the exterior angles, e, and an interior angle, i, of the polygon.







   (ii) Complete: number of sides, n = ...

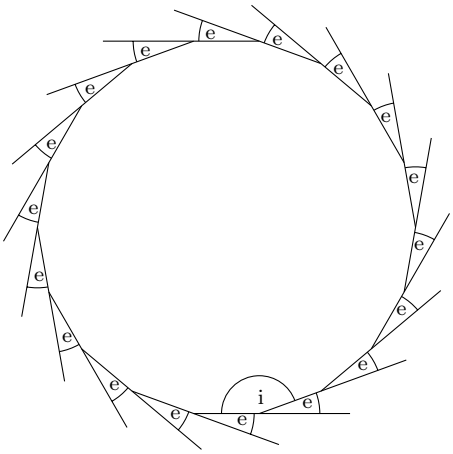
   exterior angle, e = ...°

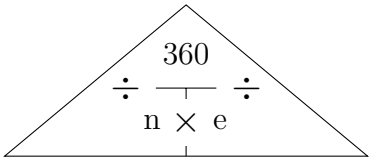
   interior angle, i = ...°

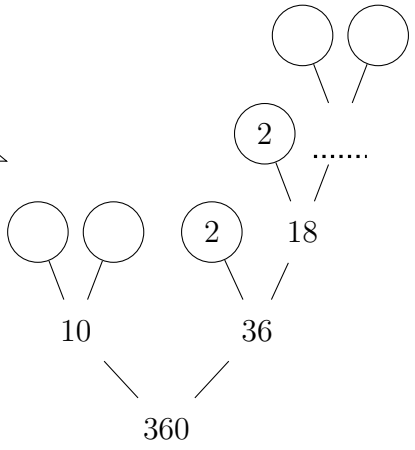
   {You may use the proportional triangle and prime factor tree}

Turn over for more questions and answers

3. Here is a regular polygon, a proportional triangle and an incomplete prime factor tree.







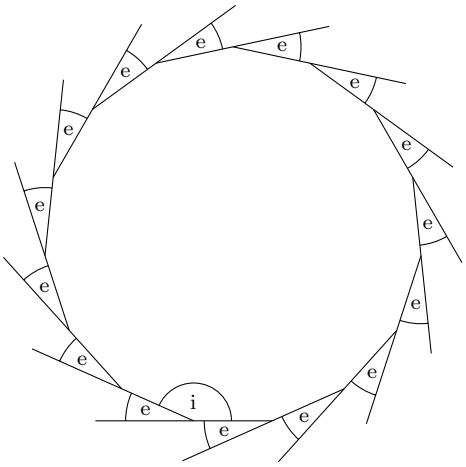
For the 18 sided polygon, work out:

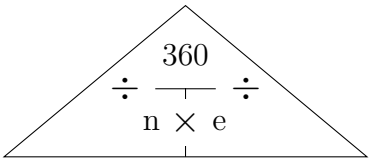
exterior angle, e = ...°

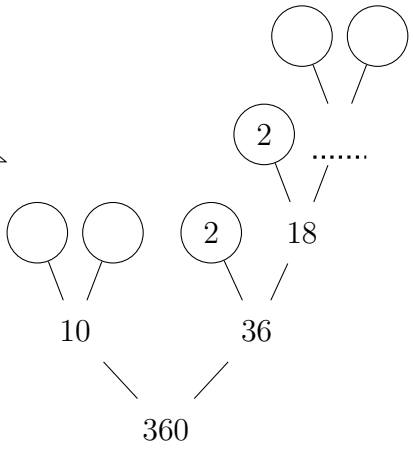
interior angle, i = ...°

{You may use the proportional triangle and prime factor tree}

4. Here is a regular polygon, a proportional triangle and an incomplete prime factor tree.







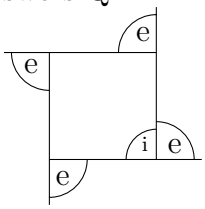
For the 15 sided polygon, work out:

exterior angle, e = ...°

interior angle, i = ...°

{You may use the proportional triangle and prime factor tree}

Answers Q1

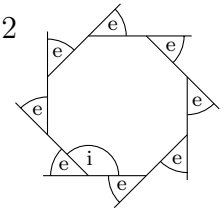


(ii) n = 4

e = 90

i = 90

Q2



(ii) n = 8

e = 45

i = 135

Q3: e = 20, i = 160

Q4: e = 24, i = 156