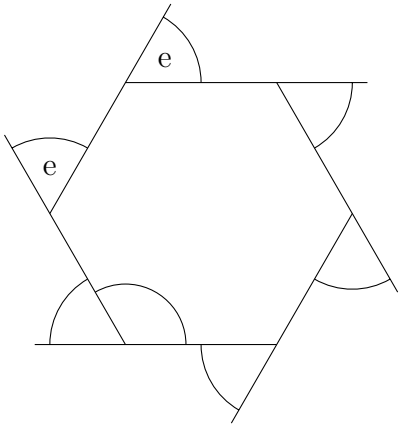
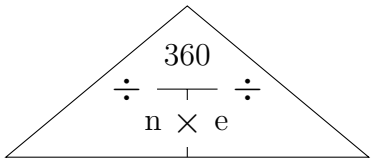
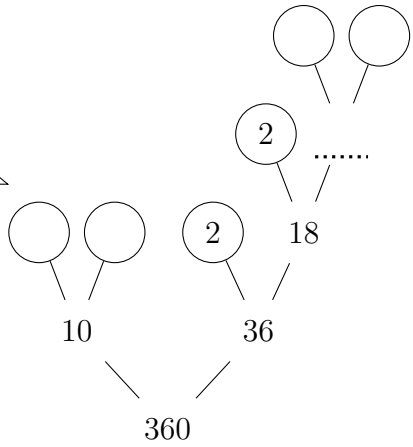
1. Here is a regular polygon, a proportional triangle and an incomplete prime factor tree.

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







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

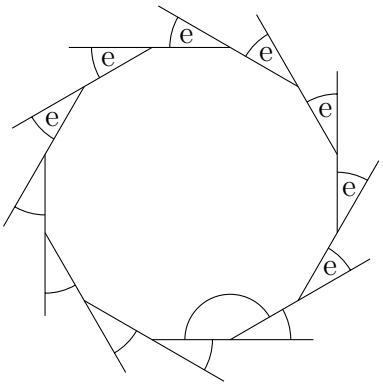
   exterior angle, e = ...°

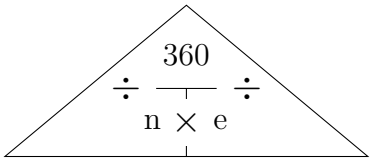
   interior angle, i = ...°

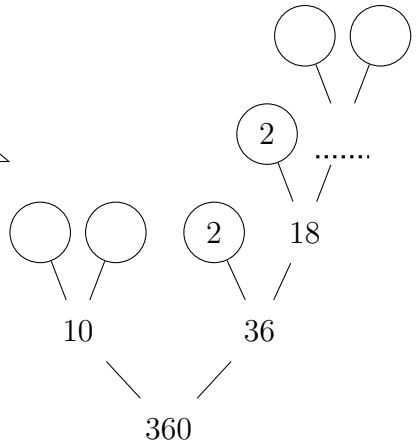
   {You may use the proportional triangle and prime factor tree}

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 = ...

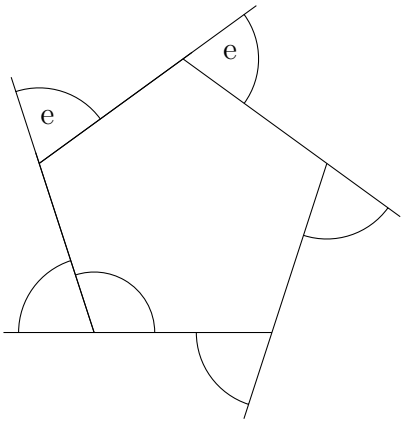
exterior angle, e = ...°

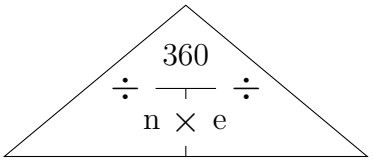
interior angle, i = ...°

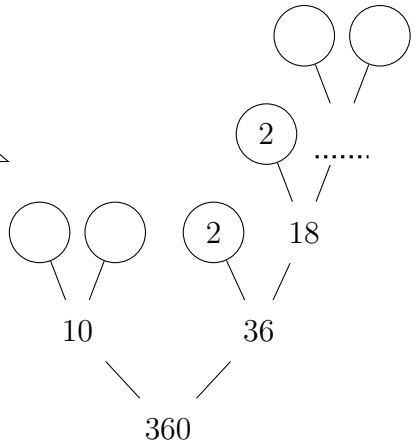
{You may use the proportional triangle and prime factor tree}

3. 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 = ...

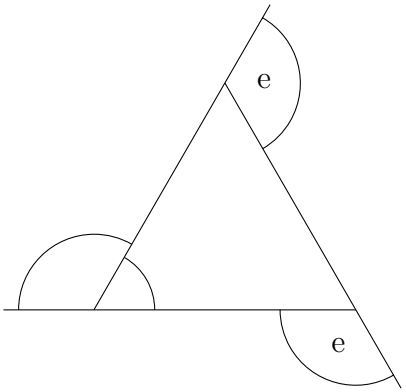
   exterior angle, e = ...°

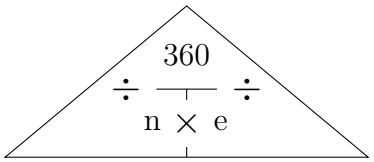
   interior angle, i = ...°

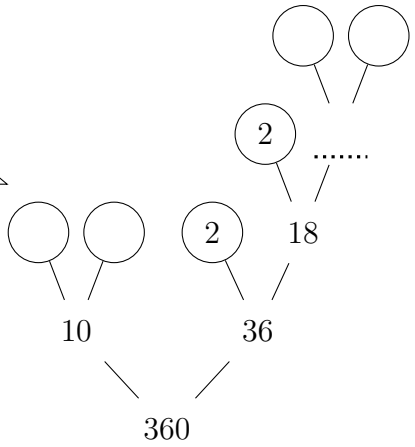
   {You may use the proportional triangle and prime factor tree}

4. 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.







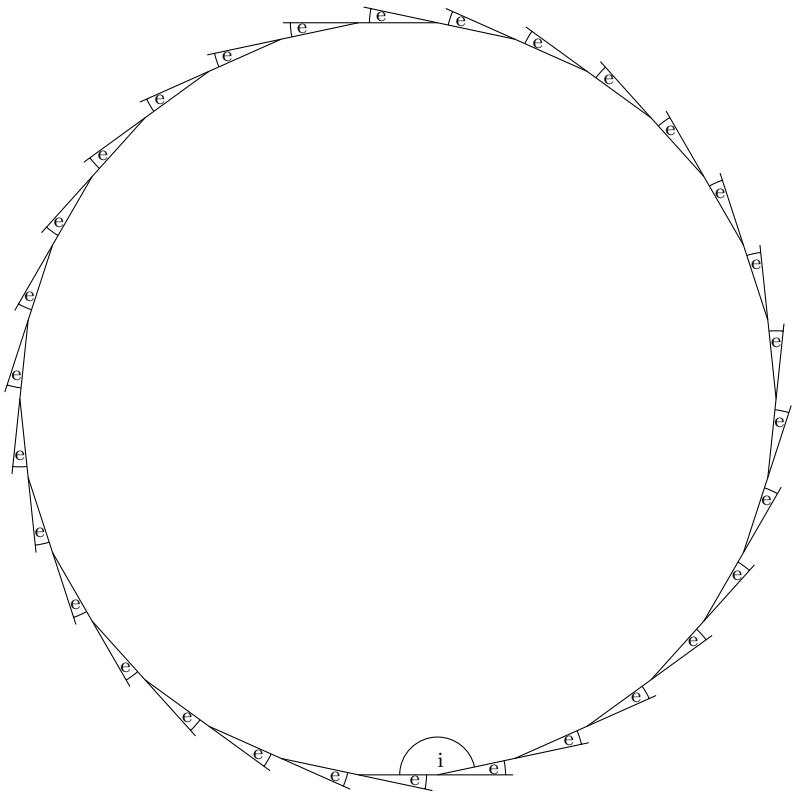
   (ii) Complete: number of sides, n = ...

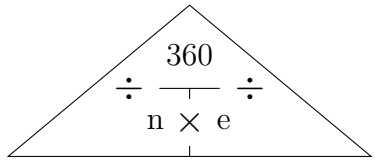
   exterior angle, e = ...°

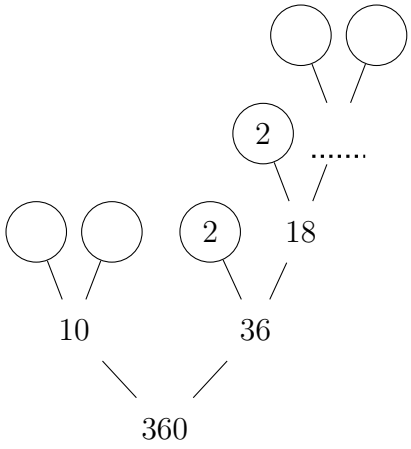
   interior angle, i = ...°

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

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







For the 24 sided polygon, work out:

exterior angle, e = ...°

interior angle, i = ...°

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

Answers

1. (ii) n = 6, e = 60 and i = 120
2. (ii) n = 12 e = 30 and i = 150
3. (ii) n = 5, e = 72 and i = 108
4. (ii) n = 3, e = 120 and i = 60
5. e = 15 and i = 165