

Interior angles in polygons

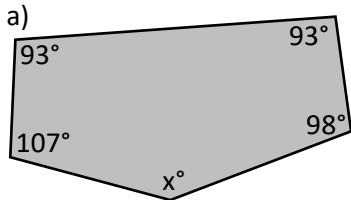
96a

Name:

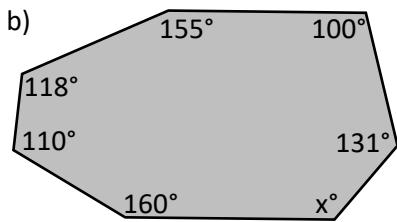


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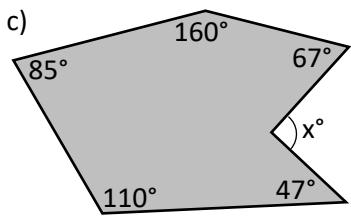
Calculate the value of missing angle x in these polygons.



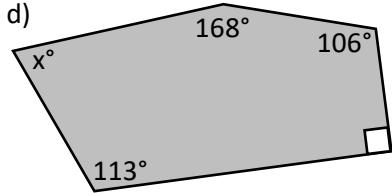
149°



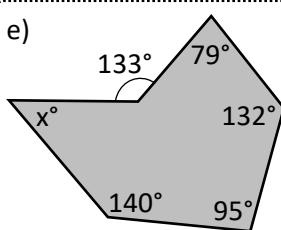
126°



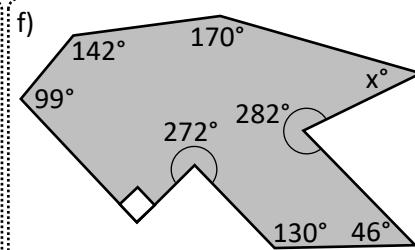
109°



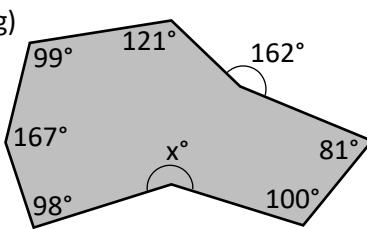
63°



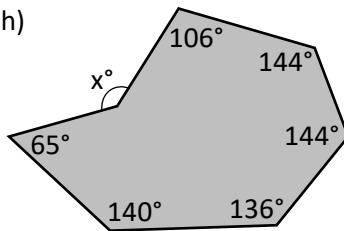
47°



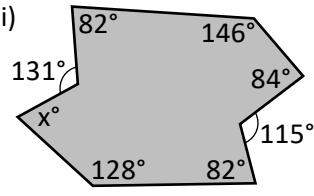
29°



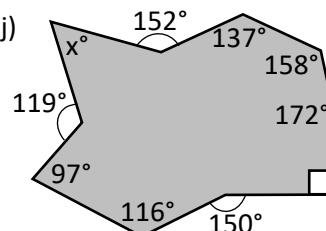
216°



195°



84°

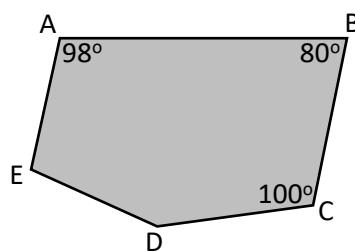


101°

Exam question:

The diagram shows the pentagon ABCDE. Angle CDE is twice as big as angle ABC. Calculate the size of angle AED.

102°



Exterior angles in polygons

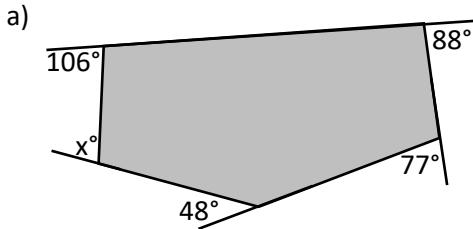
96b

Name:

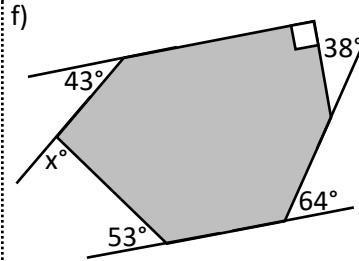


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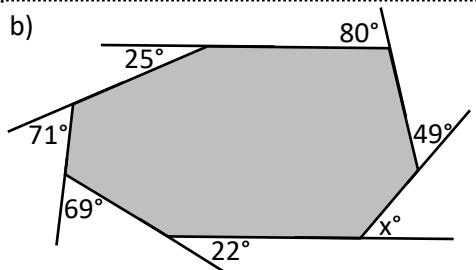
Calculate the value of missing angle x in these polygons.



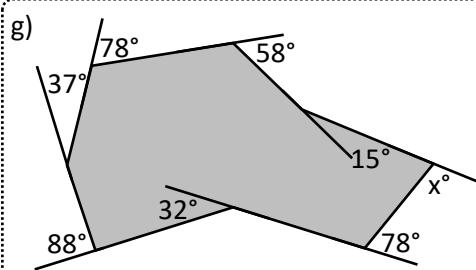
$$41^\circ$$



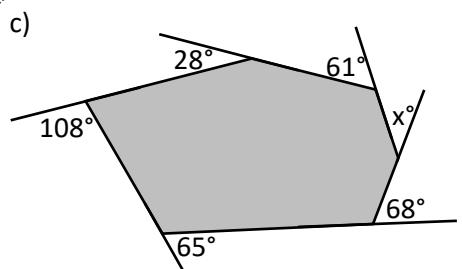
$$72^\circ$$



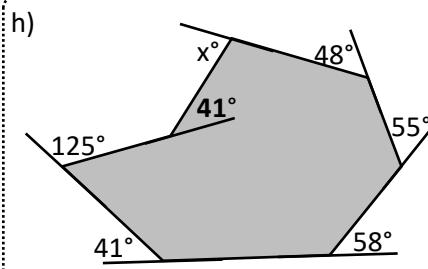
$$44^\circ$$



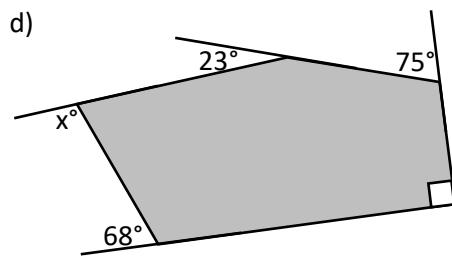
$$68^\circ$$



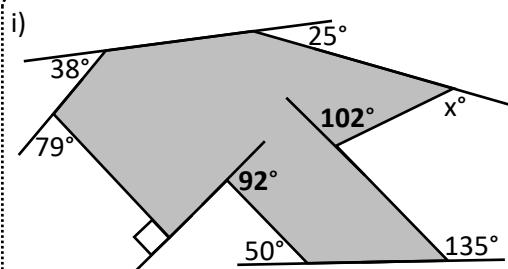
$$30^\circ$$



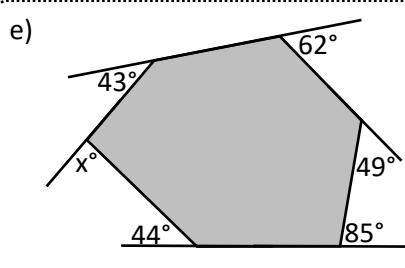
$$74^\circ$$



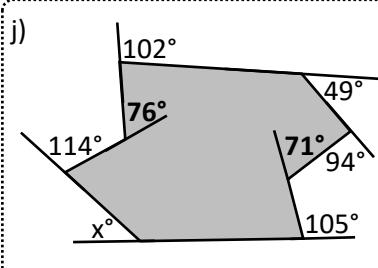
$$104^\circ$$



$$137^\circ$$



$$77^\circ$$

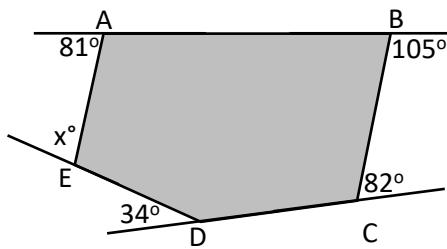


$$43^\circ$$

Exam question:

The diagram shows the pentagon ABCDE. Calculate the external angle shown as x at E.

$$58^\circ$$



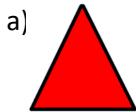
Angles in regular polygons

96c

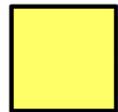
Name:



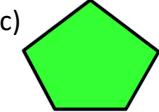
Calculate the size of each **interior** angle of the **regular** shapes:



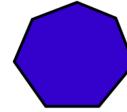
60°



90°



108°



128.6°

n) Decagon

144°

o) Octagon

135°

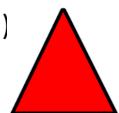
p) Hexagon

120°

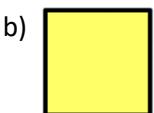
q) 18 sided shape

160°

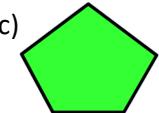
Calculate the size of each **exterior** angle of the **regular** shapes:



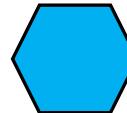
120°



90°



72°



60°

n) Decagon

36°

o) Octagon

45°

p) 12 sided shape

30°

q) 18 sided shape

20°

Find the number of sides of a **regular** polygon which has an **interior** angle of:

a) 90°

4

d) 120°

6

g) 135°

8

b) 144°

10

e) 157.5°

16

h) 160°

18

Find the number of sides of a **regular** polygon which has an **exterior** angle of:

a) 120°

3

d) 15°

24

g) 7.5°

48

b) 9°

40

e) 22.5°

16

h) 14.4°

25

Exam question:

Find the number of sides of a **regular** polygon which has an exterior angle of 30°.



12

