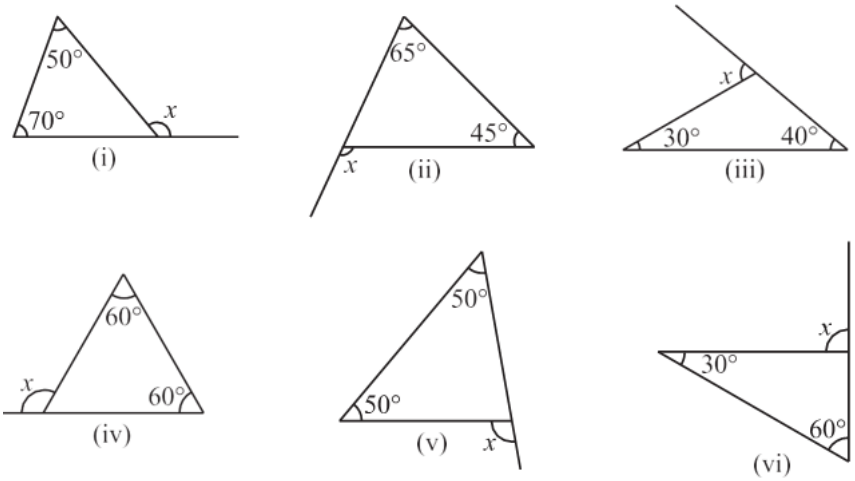
CLASS NOTES-ANSWERS

EXERCISE 6.2

1. Find the value of the unknown exterior angle x in the following diagrams:



Answer:

(i) Interior angles are $50°$ and $70°$

Exterior angle = sum of interior opposite angles

$x = 50° + 70°$

$x = 120°$

(ii) Interior angles are $65°$ and $45°$

Exterior angle = sum of interior opposite angles

$x = 65° + 45°$

$x = 110°$

(iii) Interior angles are $30°$ and $70°$

Exterior angle = sum of interior opposite angles

$x = 30° + 40°$

$x = 70°$

(iv) Interior angles are $60°$ and $60°$

Exterior angle = sum of interior opposite angles

$x = 60° + 60°$

$x = 120°$

(v) Interior angles are $50°$ and $50°$

Exterior angle = sum of interior opposite angles

$x = 50° + 50°$

$x = 100°$

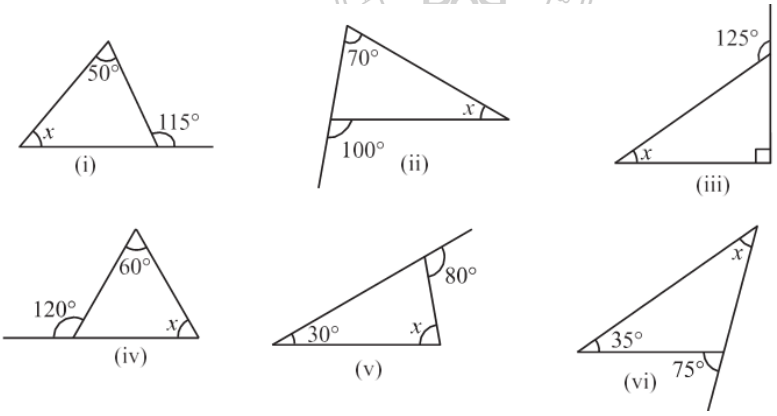
(vi) Interior angles are $30°$ and $60°$

Exterior angle = sum of interior opposite angles

$x = 30° + 60°$

$x = 90°$

2. Find the value of the unknown interior angle x in the following figures:



Answer:

(i) Exterior angle is $115°$

Exterior angle = sum of interior opposite angles

$115° = x + 50°$

$115° - 50° = x$

$x = 65°$

(ii) Exterior angle is $100°$

Exterior angle = sum of interior opposite angles

$100° = x + 70°$

$x = 100° - 70°$

$x = 30°$

(iii) Exterior angle is $125°$

Exterior angle = sum of interior opposite angles

$125° = x + 90°$

$x = 125° - 90°$

$x = 35°$

(iv) Exterior angle is $120°$

Exterior angle = sum of interior opposite angles

$120° = x + 60°$

$x = 120° - 60°$

$x = 60°$

(v) Exterior angle is $80°$

Exterior angle = sum of interior opposite angles

$80° = x + 30°$

$x = 80° - 30°$

$x = 50°$

(vi) Exterior angle is $75°$

Exterior angle = sum of interior opposite angles

$75° = x + 35°$

$x = 75° - 35°$

$x = 40°$