Answers Sheet

Angles in Polygons

1. The angle sum of regular triangle is:

$60 + 60 + 60 = 180°$

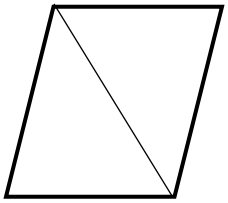
The angle sum of regular hexagon is:

$120 + 120 + 120 + 120 + 120 + 120$

$= 720°$

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2. The angle sum of irregular square is:



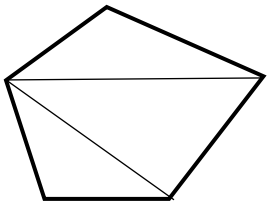
$(n – 2) \times 180$

$(4 – 2) \times 180$

2×180

$360°$

The angle sum of irregular pentagon is:



$(n – 2) \times 180$

$(5 – 2) \times 180$

3×180

$540°$

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3. $360 / 5 = 72°$

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4. $360 / 12 = 30°$

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5. $150 + 125 = 275°$

$540 – 275 = 265°$

$x = 265°$

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6. 163 + 90 + 95 + 132 + 71 = 551°
720 – 551 = 169°
y = 169°

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7. 540 / 5 = 108°

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8. 180 / 3 = 60°

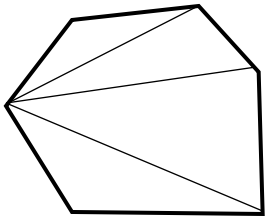
60 + 60 + 60 = 180°

360 – 180 = 180°

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9. (14 – 2) × 180
12 × 180 = 2160°
2160 / 12 = 180°

10.



(n – 2) × 180

(6 – 2) × 180

4 × 180

720°

The sum of the angles in each triangle is 180°. There are 4 triangles that from the hexagon, So 4 × 180 = 720°

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11. 360 / 6
y = 60°

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12. 360 / 12 = 30°

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13. 180 – 154 = 36°

360 / 36

10 sides.

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14. (60 – 2) × 180
58 × 180
10440°

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15. x + 3x + x + 35 + 2x + 30 + 3x + 15 = 540°
10x + 80 = 540°
10x = 540 – 80
10x = 460
x = 460 / 10
x = 46
