Name:

Solving Applied Problems

The perimeter of a triangle is 178 feet. Side two is 21 feet less than twice the length of side one. Side three is 11 feet less and triple the length of side one. What is the length of each side?

Draw a picture.

Answer:

A triangle has three angles, A, B, and C. Angle B is five degrees more than twice the measurement of angle A. Angle C is fourty-five degrees less than twice the measurement of angle A. What are the measurements of angle A, B, and C?

Draw a picture.

Answer:

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Solving Applied Problems

The perimeter of a triangle is 178 feet. Side two is 21 feet less than twice the length of side one. Side three is 11 feet less and triple the length of side one. What is the length of each side?

Answer:

Side one = x
Side two = 2x - 21
Side three = 3x - 11

Perimeter = side 1 + side 2 + side 3
178 = (x) + (2x - 21) + (3x - 11)
178 = 6x -32
210 = 6x
35 = x

Side one = 35
Side two = 2(35) - 21 = 70 - 21 = 49
Side three = 3(35) - 11 = 105 - 11 = 94

Check: 35 + 49 + 94 = 178

A triangle has three angles, A, B, and C. Angle B is five degrees more than twice the measurement of angle A. Angle C is fourty-five degrees less than twice the measurement of angle A. What are the measurements of angle A, B, and C?

Answer:

Angle A = x
Angle B = 2x + 5
Angle C = 2x - 45

Total = angle A + angle B + angle C
180 = x + (2x + 5) + (2x - 45)
180 = 5x - 40
220 = 5x
44 = x

Angle A = 44
Angle B = 2(44) + 5 = 88 + 5 = 93
Angle C = 2(44) - 45 = 88 - 45 = 43

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Check: 44 + 93 + 43 = 180

