Worksheet #2

EXTERIOR ANGLE OF A TRIANGLE

MeandMath
BELIEVE YOURSELF

Learning goal: Students will be able to apply the exterior angle property of triangles to find unknown angles when two angles are given.

Instruction: Find the measure of indicated angle in each triangle

1.

80°
125°
x

2.

50°
x
115°

3.

80°
30°
x

4.

x
70°   36°

5.

D
A
80°
B   30°   x   C

6.

A
50°
B   x   115°   D
C

Worksheet #2(Answers)

MeandMath
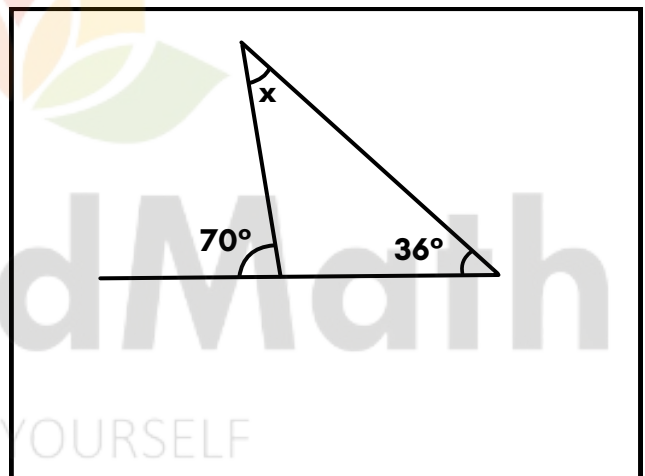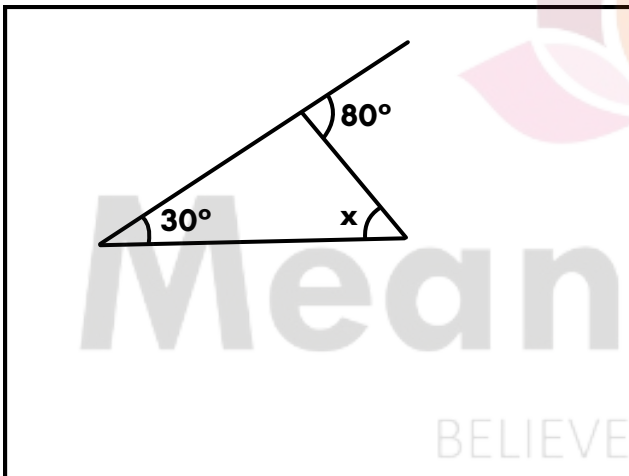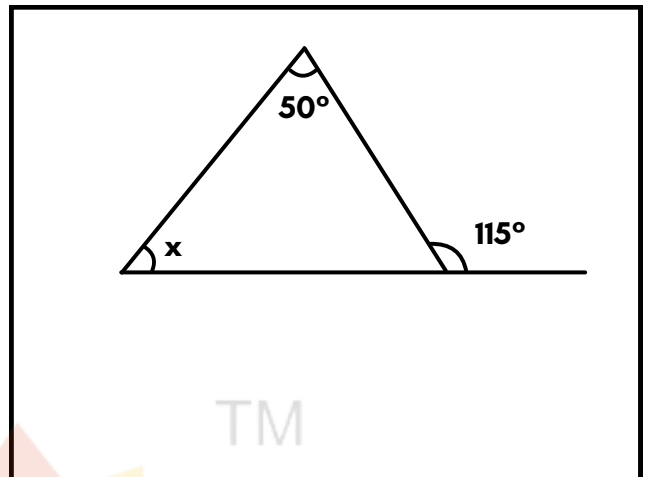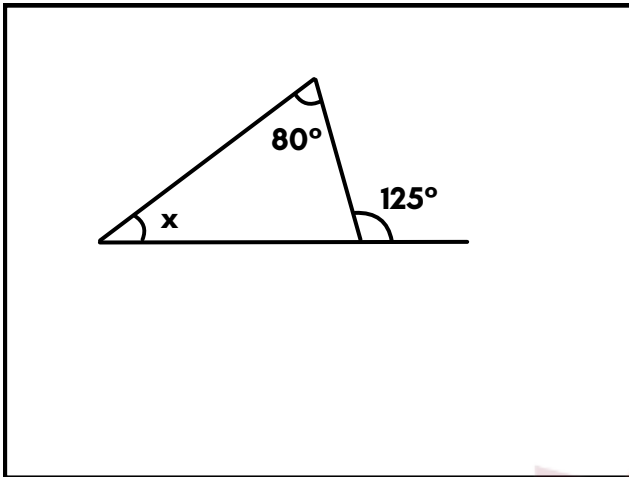BELIEVE YOURSELF

EXTERIOR ANGLE OF A TRIANGLE

Learning goal: Students will be able to apply the exterior angle property of triangles to find unknown angles when two angles are given.

Instruction: Find the measure of indicated angle in each triangle

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80°
125°
x

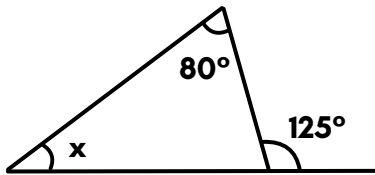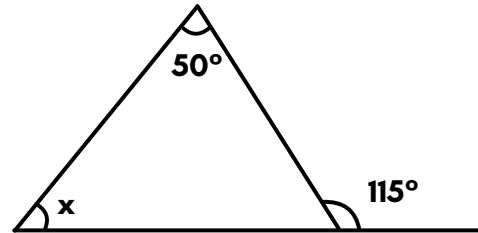**Solution:**
Use the exterior angle property:
x + 80° = 125° → x = 125° - 80° = 45°
x = 45°

50°
x
115°

Solution:
Use the exterior angle property:
x + 50° = 115° → x = 115° - 50° = 65°
x = 65°

80°
30°
x
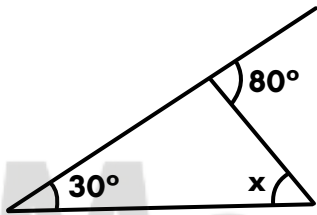
Solution:
Use Triangle Sum Property:
x = 180° - (30° + 80°) = 180° - 110° = 70°
x = 70°

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x
70°
36°
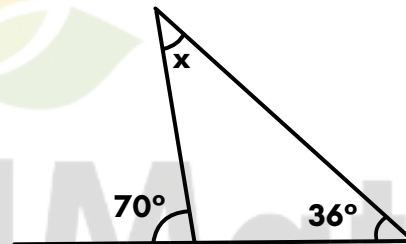
Solution:
Use Triangle Sum Property:
x = 180° - (70° + 36°) = 180° - 106° = 74°
x = 74°

D
A
80°
B
30°
x
C
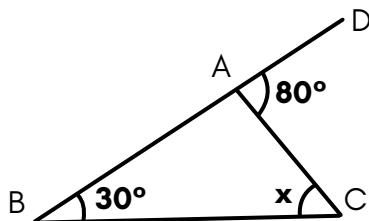
Solution:
Exterior angle = sum of interior opposite angles
x + 30° = 80° → x = 80° - 30° = 50°
x = 50°

A
50°
B
x
115°
C
D
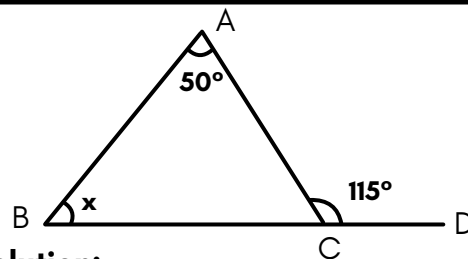
Solution:
Exterior angle = sum of opposite interior angles
x + 50° = 115° → x = 115° - 50° = 65°
x = 65°