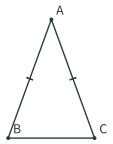
Isosceles, equilateral and special-triangle practice

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Worked example 1

AB=AC and ∠A=40°. Find each base angle.

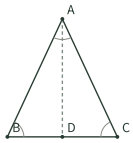


Geometry diagram; not drawn to scale except for construction tasks.

Guided attempt 2

In △ABC, ∠B=∠C. Construct the internal bisector AD with D on BC. Complete a congruence proof of AB=AC.

1. ∠ABD=___; ∠BAD=___; AD=___.
2. △ABD≅△___ by ___; hence ___=___.



Geometry diagram; not drawn to scale except for construction tasks.

Prerequisite 3

Two equal base angles are each 65°. Find the vertex angle.

Prerequisite 4

Find each interior angle of an equilateral triangle.

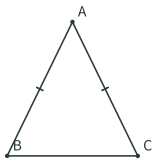
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Independent practice 5

AB=AC and ∠A=52°. Find each base angle.

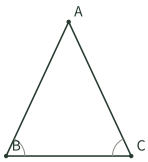


Geometry diagram; not drawn to scale except for construction tasks.

Independent practice 6

If ∠ABC=∠ACB, which side equality follows?

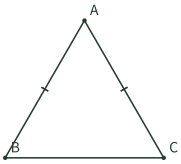
A. All sides are zero.
B. AB=AC
C. AB=BC
D. AC=BC



Geometry diagram; not drawn to scale except for construction tasks.

Independent practice 7

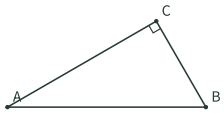
AB=AC and ∠A=60°. Prove that △ABC is equilateral; give the angle and side reasons.



Geometry diagram; not drawn to scale except for construction tasks.

Independent practice 8

∠C=90°, ∠A=30° and AB=10 cm. Find BC.



Geometry diagram; not drawn to scale except for construction tasks.

Exit question 9

An equilateral triangle has perimeter 15 cm. Find AB.

Exit question 10

In a right triangle, the leg opposite 30° is 4 cm. Find the hypotenuse AB.