Intersections, perpendiculars and distance

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Name: _____ Class: _____ Date: _____

Worked example 1

One angle is 58°. Find its vertically opposite angle; state the reason.

Guided attempt 2

One angle is 34°. Find its other part of the right angle; state the reason.

1. Let the missing angle be x: $x + 34 = 90$.
2. Subtract the known part: $x = 90 - \square$.
3. Complete $x = \square^\circ$ and check the sum.

Prerequisite 3

One angle is 120°. Find its adjacent supplementary angle; state the reason.

Prerequisite 4

Two straight lines AB and CD meet at O. Which angle is vertically opposite to $\angle AOC$?

A. $\angle BOD$

B. $\angle AOD$

C. $\angle COB$

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Independent practice 5

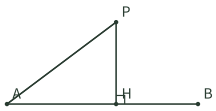
One angle is 137°. Find its vertically opposite angle; state the reason.

Independent practice 6

One angle is 31°. Find its other part of the right angle; state the reason.

Independent practice 7

P is 3 cm above line AB. PH is perpendicular to AB at H, PH=3 cm and PA=5 cm. What is the distance from P to AB? Explain your choice.



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

Independent practice 8

A transversal cuts two lines. Two marked angles lie between the lines and on opposite sides of the transversal. Name the pair; no parallelism is given.

A. Same-side interior angles; always supplementary.

B. Alternate interior angles; equality is not yet justified.

C. Corresponding angles; always equal.

Exit question 9

Which segment length defines the distance from a point to a line?

A. Any segment ending on the line.

B. The longest segment visible in the drawing.

C. The perpendicular segment to the line.

Exit question 10

One angle is 47°. Find its adjacent supplementary angle; state the reason.