

Grade 4 · Measuring and Adding Angles · Test Answer Key

Common Core 4.MD.C.5, 4.MD.C.6, 4.MD.C.7 · mathovore.fr

Use this answer key to score the angles test out of 20 points. Each solution shows the work, and the scoring note explains how the points are awarded. For drawn angles, accept answers within 3 degrees of the correct measure.

Grade 4 Common Core: 4.MD.C.5 · 4.MD.C.6 · 4.MD.C.7

Question 1: Turns and degrees (2 points)

(a) $360 \div 2 = 180$. A half turn is 180° .

(b) $90 \div 360 = \frac{1}{4}$. An angle of 90° is $\frac{1}{4}$ of a circle.

Scoring: 1 point for each correct answer.

Question 2: One-degree angles (2 points)

(a) 110° . (b) **60 one-degree angles.**

Scoring: 1 point for each correct answer.

Question 3: Reading a protractor (2 points)

(a) Ray C crosses 60: 60° . (b) Ray B crosses 115: 115° .

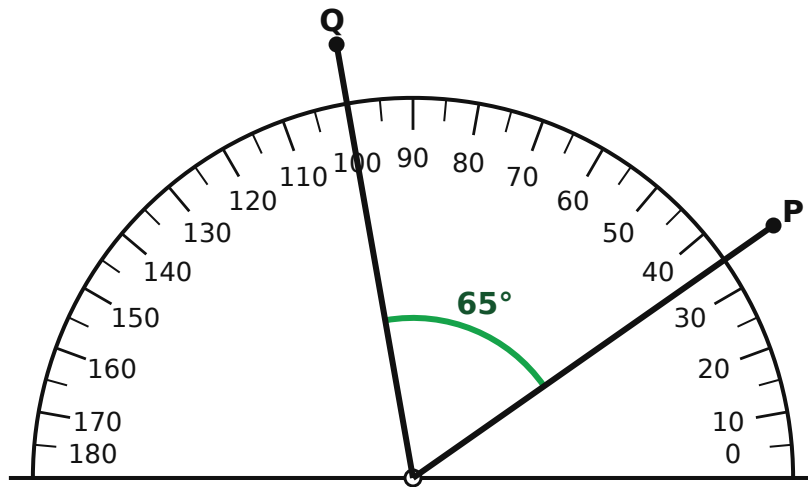
Scoring: 1 point for each correct measure. Do not give credit for a reading from the wrong scale (120° or 65°).

Question 4: Rays not on zero (2 points)

Ray P crosses 35° and ray Q crosses 100° .

$$100 - 35 = 65.$$

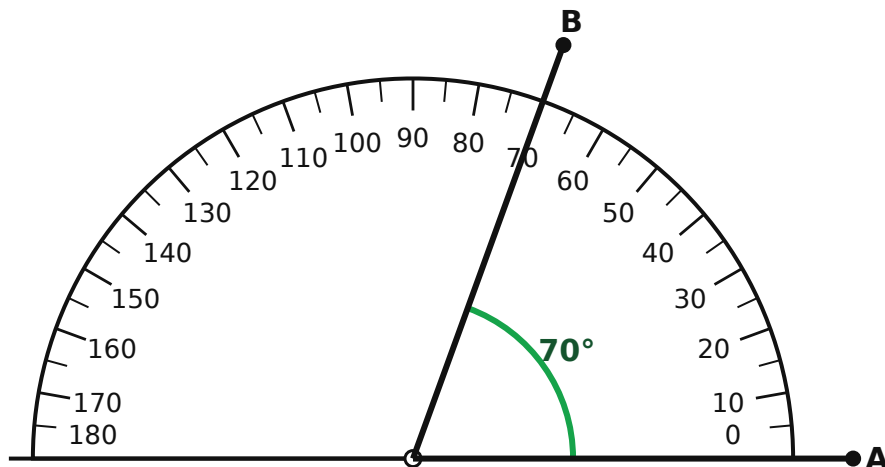
The angle measures 65° .



Scoring: 1 point for reading both rays correctly, 1 point for subtracting to get the measure.

Question 5: Draw an angle (3 points)

Place the center of the protractor on the dot, with the 0 mark on the given ray. Mark 70 on the scale that starts at 0 and draw a ray from the dot through the mark.



Scoring: (a) 1 point for using the dot as the vertex and the given ray as one side, 1 point for an angle within 3 degrees of 70° . (b) 1 point for the label 70° .

Question 6: Adding angle measures (2 points)

(a) $38 + 47 = n$.

(b) $n = 85$. Angle AOB measures 85° .

Scoring: 1 point for an equation that adds the two parts, 1 point for the correct sum.

Question 7: Unknown angles (3 points)

(a) $34 + x = 90$, so $x = 90 - 34 = 56$: 56° .

(b) $72 + y = 180$, so $y = 180 - 72 = 108$: 108° .

Scoring: (a) 1 point. (b) 1 point for the equation, 1 point for the correct value.

Question 8: Equation with a letter (2 points)

Let d be the measure of angle DBC. $87 + d = 142$.

$d = 142 - 87 = 55$.

Angle DBC measures 55° .

Scoring: 1 point for a correct equation, 1 point for the solution.

Question 9: Angle on a clock (2 points)

(a) Each space between numbers is $360 \div 12 = 30$ degrees. From 12 to 5 is $5 \times 30 = 150$: 150° .

(b) A quarter turn is 90° . $150 - 90 = 60$: 60° greater.

Scoring: 1 point for each correct answer.

Total
20 points