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Lines and Angles

Student Worksheet

Questions & Working Space

IGCSE Mathematics

Name: _____

Date: _____

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Note

How to use this worksheet. These questions are built *strictly* on the *Lines and Angles* notes: types of angles, complementary and supplementary pairs, angles on a straight line, angles at a point, vertically opposite angles, and the parallel-line rules (corresponding, alternate and co-interior angles).
Always give a reason. For every angle you find, write the angle fact you used — "angles on a straight line", "vertically opposite angles", "alternate angles", and so on. In the examination, the reason carries its own mark.
Diagrams are not drawn to scale. Never measure an angle with a protractor to answer a question: work it out from the angle facts. Arrow markings on a diagram show that lines are parallel.
Working space. Ruled lines are provided after each question — show *all* of your working there. Harder questions have a teal **Hint** box; try the question first and use the hint only if you are stuck.
Checking your answers. Full step-by-step solutions, a marking scheme for the exam paper, and a quick answer key are in the separate booklet *"Lines and Angles — Solutions & Answer Key."* Try each question honestly before you look.

1 Part I — Topic-by-Topic Exercises

1.1 Types of Angles

Exercise TA1 *[Basic]*

Write down the type of each angle: acute, right, obtuse, straight or reflex.
(a) 47° (b) 163° (c) 90° (d) 205° (e) 180° (f) 88°

Exercise TA2 *[Basic]*

Write down (a) the complement and (b) the supplement of 28°.

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Exercise TA3 *[Standard]*

Two angles are complementary. One of them is three times the size of the other. Find both angles.

Exercise TA4 *[Standard]*

An angle is 40° larger than its supplement. Find the angle and its supplement.

Hint

Call the angle x. Its supplement is $180^\circ - x$. Now turn the sentence "is 40° larger than" into an equation.

Exercise TA5 *[Intermediate]*

Two straight lines meet at a point, forming an acute angle of 74° on one side. Find the reflex angle on the other side of the same pair of arms, and explain which angle fact you used.

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Preview ends here

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