

y6math1 Hard

15 Difficult Worded Problems

Show all working out in the space provided.

Name: _____ Date: _____ Score: ____ / 15

Question 1:

Jamal draws an angle and measures it at 116° . What type of angle is it? Its supplementary angle is x° . Find x and state what type of angle the supplementary angle is.

Working out:

Question 2:

A clock shows 3:45. What is the angle between the hour hand and the minute hand? Explain whether this angle is acute, obtuse, or reflex.

Working out:

Question 3:

At a point, three angles meet: 47° , 88° , and m° . The total around the point is 360° . Find m° and classify all three angles by type.

Working out:

Question 4:

Two straight lines cross, creating four angles. One angle is 112° . Name the type of each angle. Find the size of the other three angles and state which ones are vertically opposite.

Working out:

Question 5:

A right angle is divided into two angles by a ray. One angle is 36° . The other is y° . Find y . If the smaller angle is doubled, is the pair still complementary? Explain.

Working out:

Question 6:

Sofia constructs an angle labelled RST using the letter R, S, T. If angle RST = 74° and angle TSV = 29° lie on a straight line R-S-V, find angle VSR.

Working out:

Question 7:

An angle measures 168° . State its type. Find its reflex angle and its supplementary angle. What is the difference between the reflex angle and the supplementary angle?

Working out:

Question 8:

A straight angle is split into four parts: a° , b° , c° , and d° . The first three are 39° , 52° , and 67° . Find d° . If each part were doubled, would they still lie on a straight line? Show working.

Working out:

Question 9:

Ben says: 'A reflex angle is bigger than a straight angle but smaller than a revolution.' Give two example measures that are reflex angles, and state their supplementary angles.

Working out:

Question 10:

At a point, four angles measure $5x$, $3x$, $2x$, and $2x$ degrees, and they total 360° . Find x and the size of each angle. Classify the largest angle by type.

Working out:

Question 11:

A triangle has one angle of 43° . The other two are equal. Find their sizes and name the triangle's angle type. If one equal angle is increased by 17° , find the new third angle.

Working out:

Question 12:

Using letters, PQR is an angle where QR is a straight line from P to R. If angle PQS = $3y$ and angle SQR = y , and they together form a straight angle, find y and both angles.

Working out:

Question 13:

An angle measures 144° and its supplement is 36° . How many times larger is the 144° angle than its supplement? What type of angle is the 144° angle? If the 144° angle is increased by 25%, find the new supplement.

Working out:

Question 14:

Lily looks at an angle of 5° and says it is acute. What is its reflex angle? How many 5° angles fit into one full revolution of 360° ?

Working out:

Question 15:

A diagram shows two vertically opposite pairs. One angle is $8z - 20$ and the opposite angle is $2z + 40$. Find z and the size of all four angles, then classify each type.

Working out:
