

WORKSHEET

Parallel lines and Transversals

Unsolved with Answer key



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Parallel lines and Transversals

Q1: Two parallel lines are cut by a transversal. If one angle measures 110° , find the measures of all corresponding, alternate interior, and alternate exterior angles.

Q2: If a transversal intersects two parallel lines creating one angle of $(3x+10)^\circ$ and its corresponding angle of 110° , find x .

Q3: Given two parallel lines and a transversal, if the consecutive interior angles are $(5x-20)^\circ$ and $(4x+10)^\circ$, find x .

Q4: In the diagram, $l \parallel m$, and t is a transversal. If $\angle 1 = 60^\circ$, find the measure of all angles.

Q5: Determine the measure of the angles formed when two parallel lines are cut by a transversal if one angle is x° and its alternate exterior angle is $(2x-30)^\circ$.

Q6: Two parallel lines are cut by a transversal. If one angle measures 130° , what are the measures of its consecutive interior angles?

Q7: If two parallel lines are cut by a transversal and the consecutive exterior angles are $(3x+15)^\circ$ and $(5x-45)^\circ$, solve for x .

Q8: Given two parallel lines and a transversal, if the alternate interior angles are $4x^\circ$ and $(2x+20)^\circ$, find x .

Q9: Find the value of x if the corresponding angles in a parallel lines and transversal problem are $(2x+10)^\circ$ and $(3x-20)^\circ$.

Q10: Two parallel lines are cut by a transversal. If one angle is $2x^\circ$ and the corresponding angle is $(3x+30)^\circ$, find x .

Answer Key

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1. $110^\circ, 70^\circ, 110^\circ, 70^\circ$
2. $x = 30$
3. $x = 30$
4. $60^\circ, 120^\circ, 60^\circ, 120^\circ, 60^\circ, 120^\circ, 60^\circ, 120^\circ$
5. $x = 30$
6. $50^\circ, 130^\circ$
7. $x = 30$
8. $x = 10$
9. $x = 30$
10. $x = 30$