Angles in parallel lines

Answers

KS3 Maths topic practice

This topic online

Q	Answer	Marks
1	**a)** ABC (or CBA) **b)** BC **c)** ACB (or BCA)	3
2	**a)** 116 **b)** angles on a straight line add up to 180 degrees	2
3	x = 97 (angles around a point add up to 360 degrees)	2
4	**a)** 38° (vertically opposite angles are equal) **b)** 142° (angles on a straight line add up to 180°) **c)** 142° (vertically opposite to b)	3
5	**a)** 63° (AB and CD are perpendicular, so angle BOC = 90°) **b)** 63° (vertically opposite to x)	3
6	**a)** 65° (alternate angles are equal) **b)** 65° (corresponding angles are equal) **c)** 115° (co-interior angles add up to 180°)	4
7	x = 109 (co-interior angles between parallel lines add up to 180 degrees)	3
8	**a)** They are alternate angles, and alternate angles are equal **b)** 95°	3
9	118°	4
10	69°	4
11	104° + 76° = 180°; angle QPB and angle PQD are co-interior angles; co-interior angles adding to 180° means the lines are parallel	4
12	Angle DAB = p and angle EAC = q (alternate angles), and DAB + r + EAC = 180° (angles on a straight line), so p + q + r = 180°	3

Full worked solutions, written out by hand, are on the solutions sheet for this topic.

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