S1 Geography Practice Paper 2 | Map scale, bearings, contours, climate data

Junior Secondary Geography

S1 Geography practice paper with answers: map scale and area, bearings and back bearings, contour gradients, climate data, population density and land-use.

1. Scale and map measurement (16 marks)

Give distances and areas to 2 decimal places.

#	Question
1	(a) The map scale is 1:20 000 and two points are 4.5 cm apart on the map. Find the real distance in km.
2	(b) A road is 3 km long on the ground. How long is it on the map, in cm?
3	(c) Walking at 4 km per hour, how many minutes are needed to cover the distance in (a)?
4	(d) What real area in km² does 1 cm² on the map represent?

2. Bearings and back bearings (16 marks)

Give bearings as three digits, measured clockwise from north.

#	Question
5	(a) The bearing of B from A is 065°. Find the back bearing of A from B.
6	(b) Which of the eight compass points is closest to a bearing of 310°?
7	(c) From A, walk 1.2 km east then 1.6 km north to reach B. Find the straight-line distance AB in km.
8	(d) From (c), find the bearing of B from A in whole degrees, and the average speed in km/h if the journey takes 40 minutes.

3. Contours and gradient (18 marks)

Give percentages in whole numbers and angles to 1 decimal place.

#	Question
9	(a) A hill top is 320 m high and the foot is 120 m high. Find the relative height.
10	(b) Two points are 500 m apart horizontally with a 100 m height difference. Find the gradient as a percentage.
11	(c) From (b), express the same gradient as 1 in N and find N.
12	(d) On a 1:20 000 map, two adjacent contour lines are 2 cm apart and the contour interval is 20 m. Find the slope angle in degrees.

4. Rainfall and temperature data (18 marks)

Give rainfall in mm and percentages to 1 decimal place.

#	Question
13	(a) Six monthly rainfall totals are 30, 45, 80, 210, 320 and 260 mm. Find the six-month total.
14	(b) Find the mean monthly rainfall for those six months.
15	(c) What percentage of the six-month total falls in the wettest month?
16	(d) The warmest month averages 29.0 °C and the coolest 16.0 °C. Find the annual range and say whether it points to a low-latitude or high-latitude climate.

5. Population density (16 marks)

Give densities in whole numbers and percentages to 1 decimal place.

#	Question
17	(a) District A has 420 000 people over 21 km². Find its population density in people per km².
18	(b) District B has 180 000 people over 12 km². Find its population density.
19	(c) By what percentage is the density of A higher than that of B?
20	(d) If the population of A grows 2% a year, find its population after two years as a whole number.

6. Land use and conflict (16 marks)

Give areas to 1 decimal place and percentages in whole numbers.

#	Question
21	(a) A district covers 50 km² and 35% is residential. Find the residential area.
22	(b) Industry takes 15% and farmland 20%. Find their combined area.
23	(c) If 5 percentage points of farmland are rezoned as residential, find the new residential area and its percentage.
24	(d) State one land-use conflict this rezoning may cause and suggest one way to ease it.