10.9 Graphical Skills: Population Pyramids, Triangular Graphs and Radial Graphs: 10-minute Pack

Total Marks

AQA 8035 · Calculators not allowed · about 10 minutes

Name: _____ Date: ____ / ____ / _____

Answer in full sentences for the longer 3 mark or above items only. Short items and calculations may be answered in phrases, numbers or labelled diagrams. Time guidance: 10 minutes for the whole pack.

1 Define what a population pyramid is, in the context of showing a country's age and sex structure.

(Total for Question 1 is 1 mark)

2 State one feature on a population pyramid that indicates a youthful population, in the context of a fictional country.

(Total for Question 2 is 1 mark)

3 Name one limitation of using a population pyramid alone to predict future economic dependency in a fictional country.

(Total for Question 3 is 1 mark)

4 On a radial graph, explain why it is useful to join the plotted points with lines to form a polygon when comparing sectors for a single town.

(Total for Question 4 is 1 mark)

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5 A student plots a point on a triangular graph but forgets to check that the three percentages add to 100. Explain briefly why this check is important and give one consequence of failing to check this.

(Total for Question 5 is 1 mark)

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6 The age distribution of fictional Town L, used for a population pyramid, is given below. State the total percentage of the population aged 0-14.

Town L age distribution (percent of total population): 0-14: 32%, 15-64: 60%, 65+: 8%.

(Total for Question 6 is 1 mark)

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7 Using the triangular graph method, describe the employment structure of fictional Country Y which plots at approximately Primary 30%, Secondary 20%, Tertiary 50%. Give two descriptive points about the likely economic character.

(Total for Question 7 is 2 marks)

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8 A plotted point on a triangular graph reads off as Primary 5%, Secondary 25%, Tertiary 70%. Explain why this point cannot represent a diversified manufacturing economy, giving one reason referring to the three-sector structure.

(Total for Question 8 is 2 marks)

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Mark scheme · 10.9 Graphical Skills: Population Pyramids, Triangular Graphs and Radial Graphs: 10-minute Pack

Question 1

a bar chart that shows the distribution of age groups split by male and female for a population, oe **B1**

Answer: A bar chart that shows the distribution of age groups split by male and female for a population.

Question 2

a wide base showing high proportions of young people (large 0-14 age groups), oe **B1**

Answer: A wide base showing high proportions of young people in the 0-14 age groups.

Question 3

it does not show future changes in fertility or migration that will affect dependency, oe **B1**

Answer: It does not show future changes in fertility or migration that will affect dependency.

Question 4

joining points shows the overall shape and makes comparisons of relative strengths and weaknesses easier at a glance, oe **B1**

Answer: Joining the points forms a polygon that shows the overall shape of strengths and weaknesses, making it easier to compare sectors visually and spot which areas are relatively strong or weak at a glance.

Question 5

states that the ternary plot requires components to sum to 100 and that failing to check leads to an incorrect plotted position or misinterpretation, oe **B1**

Answer: Because triangular graphs require the three components to sum to 100, you must check this; failing to do so results in an incorrectly placed point and possible misinterpretation of the economic structure.

Question 6

32% cao **B1**

Answer: 32%.

Question 7

identifies that Country Y has a relatively high Primary sector (30%) and high Tertiary (50%), oe **B1**

gives implication, e.g. partly agricultural or resource-based but also significant services sector, oe **B1**

Answer: Country Y has a substantial Primary sector (about 30%) and a large Tertiary sector (about 50%); this suggests the economy still relies on agriculture or raw materials but also has a strong services sector, with a smaller manufacturing base.

Question 8

notes that Secondary (manufacturing) is only 25%, which is low for a manufacturing-focused economy, oe **B1**

gives implication, e.g. high Tertiary (70%) suggests services dominate instead of manufacturing, oe **B1**

Answer: Secondary employment is only 25%, which is low for a diversified manufacturing economy; instead Tertiary at 70% shows a services-dominated economy, so manufacturing is not the main driver.

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