

UNIT 1 Mathematical Diagrams

Mental Tests

M 1.1 Standard Route *(no calculator)*

You will need the Data Sheet – Questions 1 to 6 refer to the Mileage Chart

1. How far is it from Exeter to Newcastle? (373 miles)
2. How far is it from London to Oxford? (56 miles)
3. How far is it from Leeds to London? (198 miles)
4. Alison drives from Leeds to Manchester and then back to Leeds.
How far does she travel? (88 miles)
5. Which city is closest to Exeter? (Oxford)
6. Which city is farthest away from Newcastle? (Exeter)

Questions 7 to 10 refer to the Network Diagram

7. What is the shortest distance from S to B ? (4 km)
8. What is the shortest distance from B to T ? (4 km)
9. What is the shortest distance from C to T ? (6 km)
10. What is the shortest distance from A to D ? (6 km)

M 1.2 Academic Route *(no calculator)*

You will need the Data Sheet – Questions 1 to 7 refer to the Mileage Chart

1. How far is it from Leeds to Oxford? (171 miles)
2. How far is it from London to Newcastle? (285 miles)
3. Which city is closest to London? (Oxford)
4. Which city is farthest away from Manchester? (Exeter)
5. Rachel drives from Manchester to Oxford and then back to Manchester.
How far does she travel? (320 miles)
6. Jai travels from Newcastle to Exeter and then back to Newcastle.
How far does he travel? (746 miles)
7. Peter drives from Leeds to Manchester and then on to London.
How far does he travel? (246 miles)

Questions 8 to 10 refer to the Network Diagram

8. What is the shortest distance from S to B? (4 km)
9. What is the shortest distance from B to T ? (4 km)
10. What is the shortest distance from S to T ? (8 km)

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M 1.3 Express Route *(no calculator)*

You will need the Data Sheet – Questions 1 to 8 refer to the Mileage Chart

1. Which city is closest to Manchester? (Leeds)
2. Which city is farthest from London? (Newcastle)
3. Jane drives from Exeter to Manchester and then back to Exeter.
How far does she travel? (492 miles)
4. How far would you travel if you drove from Exeter to Oxford and
then on to Newcastle? (411 miles)
5. Andrew drives from London to Newcastle and then back to London.
How far does he drive? (570 miles)
6. Each day Jarad drives from Oxford to London and then back to Oxford.
How far does he drive in 10 days? (1120 miles)
7. How much farther is it from London to Newcastle than from
London to Manchester? (83 miles)
8. If you always drive at 50 mph, how long will it take you
to drive from Leeds to London and then on to Manchester? (8 hours)

Questions 9 to 10 refer to the Network Diagram

9. What is the shortest distance from S to D ? (10 km)
 10. What is the shortest distance from S to T ? (8 km)
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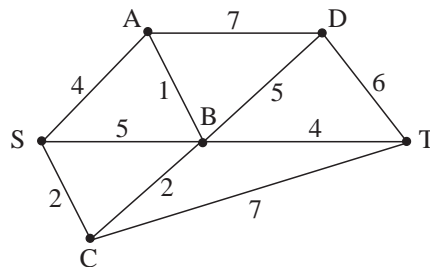
Data Sheet for Mental Tests

Mileage Chart

	EXETER				
286		LEEDS			
200	198		LONDON		
246	44	202		MANCHESTER	
154	171	56	160		OXFORD
373	94	285	144	257	NEWCASTLE

Distances in miles

Network Diagram



Distances in km