

# Santa's Route

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Score: \_\_\_\_\_



*Use the distance chart and the map to help you answer the following questions.*

1. Santa Claus is in Cairo and still has eleven cities to go before he can give his reindeer a break. The reindeer are already tired, so Santa wants to find the shortest route to follow starting at Cairo and stopping at all the other cities. It doesn't matter which city is the final stop. Use the chart and map to help Santa find the shortest route. What is the distance you found?
  
2. What is the shortest route and the distance if Santa starts in Warsaw?
  
3. Can you find another route that is even shorter if Santa starts in a different city? What route and distance did you find?

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# Santa's Route Distance Chart

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Score: \_\_\_\_\_

Cities	Cairo	Kolkata	Chicago	Lisbon	London	Manila	Moscow	Paris	Rome	Sydney	Tokyo	Warsaw
<b>1. Cairo</b>	miles	3,539	6,129	2,363	2,181	5,704	1,803	1,995	1,320	8,952	5,935	1,630
<b>2. Kolkata</b>	3,539	miles	7,980	5,638	4,947	2,203	3,321	4,883	4,482	5,685	3,194	4,048
<b>3. Chicago</b>	6,129	7,980	miles	3,990	3,950	8,143	4,974	4,134	4,808	9,272	6,299	4,667
<b>4. Lisbon</b>	2,363	5,638	3,990	miles	985	7,546	2,427	904	1,161	11,302	6,915	1,715
<b>5. London</b>	2,181	4,947	3,950	985	miles	6,672	1,555	213	887	10,564	5,940	899
<b>6. Manila</b>	5,704	2,203	8,143	7,546	6,672	miles	5,131	6,677	6,457	3,944	1,866	5,837
<b>7. Moscow</b>	1,803	3,321	4,974	2,427	1,555	5,131	miles	1,544	1,474	9,012	4,647	715
<b>8. Paris</b>	1,995	4,883	4,134	904	213	6,677	1,544	miles	697	10,544	6,034	849
<b>9. Rome</b>	1,320	4,482	4,808	1,161	887	6,457	1,474	697	miles	10,136	6,135	817
<b>10. Sydney</b>	8,952	5,685	9,272	11,302	10,564	3,944	9,012	10,544	10,136	miles	4,866	9,696
<b>11. Tokyo</b>	5,935	3,194	6,299	6,915	5,940	1,866	4,647	6,034	6,135	4,866	miles	5,249
<b>12. Warsaw</b>	1,630	4,048	4,667	1,715	899	5,837	715	849	817	9,696	5,249	miles

To find a distance from one city to another, find where the row of the first city intersects the column of the second city or vice-versa. Each pair of cities can be found twice on the chart.

For example, to find the distance from Rome to Chicago, find Rome's row and follow it to the right until it intersects Chicago's column. You could also start with Chicago's row and follow it until it intersects with Rome's column. The distance from Rome to Chicago is highlighted in light red in the chart in both places it can be found.

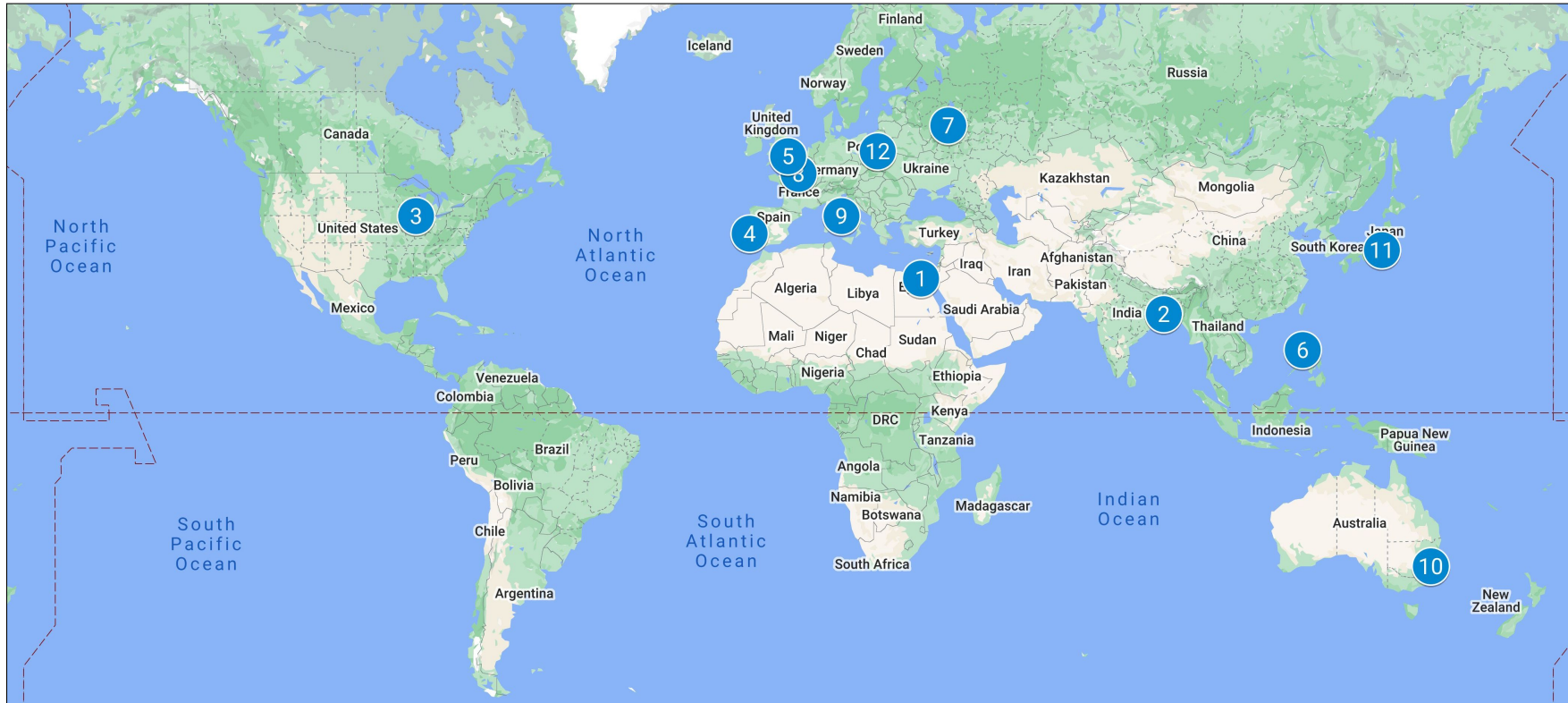
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# Santa's Route Map

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Score: \_\_\_\_\_



Source: Google My Maps, Map data ©2021 Google

[View this map on Google My Maps](#)

If you have a Google account, you can copy the map into your account then draw in a route using the draw a line tool.

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## Santa's Route Answers

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Score: \_\_\_\_\_

***Use the distance chart and the map to help you answer the following questions.***

1. Santa Claus is in Cairo and still has eleven cities to go before he can give his reindeer a break. The reindeer are already tired, so Santa wants to find the shortest route to follow starting at Cairo and stopping at all the other cities. It doesn't matter which city is the final stop. Use the chart and map to help Santa find the shortest route. What is the distance you found?

The shortest route is: Cairo, Moscow, Warsaw, Rome, Paris, London, Lisbon, Chicago, Tokyo, Kolkata, Manila, Sydney, a total of 24,860 miles.

[Google My Maps Answer](#)

2. What is the shortest route and the distance if Santa starts in Warsaw?

The shortest route is: Warsaw, Moscow, Chicago, Lisbon, London, Paris, Rome, Cairo, Kolkata, Manila, Tokyo, Sydney, a total of 25,368 miles.

[Google My Maps Answer](#)

3. Can you find another route that is even shorter if Santa starts in a different city? What route and distance did you find?

The shortest route is: Chicago, Lisbon, London, Paris, Rome, Warsaw, Moscow, Cairo, Kolkata, Manila, Tokyo, Sydney or the reverse direction, a total of 21,694 miles.

[Google My Maps Answer](#)

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