



Planning a Holiday

Lesson 14, June 2007.

Distance

Where are we going on holiday?

Assume that 5 miles are equal to 8 km.

**How many miles / km are there between London and Paris?
Paris and Madrid?**

What speed is 70mph in km/h? See *European cities distance chart* (page 2) and <http://www.mapcrow.info/> for other distances in km.

Temperature

In Britain we use a mixture of Celsius (metric) and Fahrenheit (Imperial).

If you're going somewhere cold, expect snow and a temperature less than 0° C.

If you're going to a warmer country, hope for temperatures over about 25° C.

What are these temperatures in Fahrenheit?

Fahrenheit: Water **boils** at 212° and **freezes** at 32°.

Celsius: Water **boils** at 100° and **freezes** at 0°.

Approximate conversions

To change from Celsius to Fahrenheit, **multiply by 2** and **add 30**.

To change from Fahrenheit to Celsius, **subtract 30** then **divide by 2**.

Note: the actual formulae are $C^{\circ} \times 9 \div 5 + 32 = F^{\circ}$
 $(F^{\circ} - 32) \times 5 \div 9 = C^{\circ}$

Weight & capacity

Select our destination. Assume that our car takes 50 litres and drives about 400 miles (640 km) on a full tank. **How many times must we fill up? How much will that cost?**

Our budget is £750

The cost of the holiday (including insurance) will be £300.

How much will that be in Euros? (Assume £1 is the same as €1.50)

We've got to feed two adults and two children across five days. **How much do we need?**

Now let's go shopping for souvenirs and luxuries!

How much shall we spend on entertainment?

Postcards? Presents? Souvenirs?

Let's now translate that into Euros.

Work out how much we're going to need.

What's left from our budget?

When you exchange that back into pounds, the exchange bureau pockets 5%.

How much do we actually get back?



Estimated Travel Distance between European Cities (in km)

	Barcelona	Belgrade	Berlin	Brussels	Bucharest	Budapest	Copen- hagen	Dublin	Hamburg	Istanbul	Kiev	London	Madrid	Paris	Prague	Rome
Barcelona	0	1528.13	1497.61	1062.89	1968.42	1498.79	1757.54	1469.29	1471.78	2230.42	2391.06	1137.67	504.64	831.59	1353.90	856.69
Belgrade	1528.13	0	999.25	1372.59	447.34	316.41	1327.24	2145.39	1229.93	809.48	976.02	1688.97	2026.94	1445.70	738.10	721.55
Berlin	1497.61	999.25	0	651.62	1293.40	689.06	354.03	1315.16	254.51	1735.01	1204.00	929.97	1867.69	876.96	280.34	1181.67
Brussels	1062.89	1372.59	651.62	0	1769.69	1131.52	766.67	773.20	489.76	2178.85	1836.20	318.72	1314.30	261.29	721.08	1171.34
Bucharest	1968.42	447.34	1293.40	1769.69	0	639.77	1571.54	2534.72	1544.17	445.62	744.44	2088.42	2469.71	1869.95	1076.82	1137.38
Budapest	1498.79	316.41	689.06	1131.52	639.77	0	1011.31	1894.95	927.92	1064.76	894.29	1450.12	1975.38	1247.61	443.26	811.11
Copenhagen	1757.54	1327.24	354.03	766.67	1571.54	1011.31	0	1238.38	287.97	2017.17	1326.33	955.13	2071.75	1025.90	633.05	1529.69
Dublin	1469.29	2145.39	1315.16	773.20	2534.72	1894.95	1238.38	0	1073.36	2950.11	2513.69	462.60	1449.96	776.83	1465.61	1882.22
Hamburg	1471.78	1229.93	254.51	489.76	1544.17	927.92	287.97	1073.36	0	1983.75	1440.34	720.12	1785.33	744.63	492.25	1307.51
Istanbul	2230.42	809.48	1735.01	2178.85	445.62	1064.76	2017.17	2950.11	1983.75	0	1052.95	2496.39	2734.60	2253.98	1507.55	1373.81
Kiev	2391.06	976.02	1204.00	1836.20	744.44	894.29	1326.33	2513.69	1440.34	1052.95	0	2131.20	2859.32	2022.76	1138.61	1673.74
London	1137.67	1688.97	929.97	318.72	2088.42	1450.12	955.13	462.60	720.12	2496.39	2131.20	0	1263.37	340.55	1034.57	1431.21
Madrid	504.64	2026.94	1867.69	1314.30	2469.71	1975.38	2071.75	1449.96	1785.33	2734.60	2859.32	1263.37	0	1053.40	1773.73	1360.80
Paris	831.59	1445.70	876.96	261.29	1869.95	1247.61	1025.90	776.83	744.63	2253.98	2022.76	340.55	1053.40	0	885.38	1105.76
Prague	1353.90	738.10	280.34	721.08	1076.82	443.26	633.05	1465.61	492.25	1507.55	1138.61	1034.57	1773.73	885.38	0	922.00
Rome	856.69	721.55	1181.67	1171.34	1137.38	811.11	1529.69	1882.22	1307.51	1373.81	1673.74	1431.21	1360.80	1105.76	922.00	0

Chart from <http://www.mapcrow.info/>

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Covers many curriculum elements including: MSS1/L2.1 convert currencies, MSS1/L2.6 calculate with units of measure between systems. N1/L2.4 evaluate expressions and make substitutions in given formulae.