Multiply Decimals by Integers

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1. Elizabeth would like to donate some money to 5 different charities.

She has decided to donate an amount between £4.56 and £6.97 to each charity, but also decides to multiply each charity's amount by a different number.

Charity 1	Charity 2	Charity 3	Charity 4	Charity 5
x 2	x 5	x 9	x 4	x 1

How much could each charity have received? What could the total amount of money she donated be? Explore different possible solutions.

DP

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2. Emma the Engineer is relaying a railway track. There are tracks of different lengths that Emma could use in order to complete the job.

The track that needs relaying is 2,414.01m long. She needs to decide which option would be the most suitable to use by ordering multiples of each one.

She says,

> I think Option C will be best as I will have less waste leftover after I finish the job.

	Track lengths
Option A	543.97m
Option B	375.86m
Option C	679.941m
Option D	436.7m

Do you agree with Emma? Explain why.

An alternative track length, which has 3 decimal places, allows Emma to relay the tracks with 5 pieces. This option allows for even less waste than the 4 options given above. Investigate what the track length of this option could be.

DP

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Discussion Problems – Multiply Decimals by Integers – Year 6