

Without working out, I would choose option number 3, because although it starts off small, doubling it everyday will soon make it much larger than the rest of the options. It will also grow faster than others because each day it will double, so if it was £160 on one day, the next it would be £320, and then £640, so it will get larger very quickly.

On google spreadsheets I made a spreadsheet showing how much money you would earn each day and the total amount of money you would earn at the end of the month.

Day of the month	£10 everyday	£3, + £0.50 everyday	£0.01 * 2 everyday
Day 1	£10.00	£3.00	£0.01
Day 2	£10.00	£3.50	£0.02
Day 3	£10.00	£4.00	£0.04
Day 4	£10.00	£4.50	£0.08
Day 5	£10.00	£5.00	£0.16
Day 6	£10.00	£5.50	£0.32
Day 7	£10.00	£6.00	£0.64
Day 8	£10.00	£6.50	£1.28
Day 9	£10.00	£7.00	£2.56
Day 10	£10.00	£7.50	£5.12
Day 11	£10.00	£8.00	£10.24
Day 12	£10.00	£8.50	£20.48
Day 13	£10.00	£9.00	£40.96
Day 14	£10.00	£9.50	£81.92
Day 15	£10.00	£10.00	£163.84
Day 16	£10.00	£10.50	£327.68
Day 17	£10.00	£11.00	£655.36
Day 18	£10.00	£11.50	£1,310.72
Day 19	£10.00	£12.00	£2,621.44
Day 20	£10.00	£12.50	£5,242.88
Day 21	£10.00	£13.00	£10,485.76
Day 22	£10.00	£13.50	£20,971.52
Day 23	£10.00	£14.00	£41,943.04
Day 24	£10.00	£14.50	£83,886.08
Day 25	£10.00	£15.00	£167,772.16
Day 26	£10.00	£15.50	£335,544.32
Day 27	£10.00	£16.00	£671,088.64
Day 28	£10.00	£16.50	£1,342,177.28
Day 29	£10.00	£17.00	£2,684,354.56
Day 30	£10.00	£17.50	£5,368,709.12
Day 31	£10.00	£18.00	£10,737,418.24
Total	£310.00	£325.50	£21,474,836.47

EXTRA QUESTIONS:

In February, option 1 would gain you more money than option 2 because it only has 28 days.

Option 1 would give you £280.00 and option 2 would give you £273.00 in 28 days.

Total	£280.00	£273.00
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If my family stopped the pocket money on day 8, option one would give me the most amount of money. Option one would give me £80, option 2 would give me £38 and option 3 would give me £2.55.

Total	£80.00	£38.00	£2.55
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Option 3 becomes the most fruitful on day 11 based on my spreadsheet.

If I choose option 3, it would take 27 days to become a millionaire. On the 27th day I would have £1,342,177.27, I found this out using trial and error by finding the total of different days. For example I tried the 25th day, but the total was too small so I tried the 26th day, until I found the right day.

Total	£270.00	£256.50	£1,342,177.27
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