

Compound Growth and Decay *ramp up*

ANSWERS



a Increase 200 by 10%, then by 10% again 242 compounding (not 20% once)	b Decrease 200 by 10%, then by 10% again 162 compound decay	c Write one multiplier for 5% growth a year for 3 years 1.05^3 one multiplier with a power	d 400 grows by 5% a year. Find its value after 3 years. 463.05 growth over several years
e Find the compound interest earned on £500 at 2% a year for 3 years £30.60 the interest, not the total	f 2000 falls by 20% a year. Find its value after 3 years. 1024 decay over several years	g Increase 400 by 10%, then by 5% 462 two different rates	h A value grows by 10% a year for 3 years. Find the overall percentage change. 33.1% increase the overall percentage change
i A value goes up 20%, then down 20%. Find the overall percentage change. 4% decrease up then down is not back to the start	j A value grows by 10% a year. How many whole years until it doubles? 8 years how many years (trying powers)	k After 2 years of 10% growth a value is 605. Find the original value. 500 the original value	l 800 grows to 882 in 2 years at a compound rate. Find the yearly rate. 5% the yearly rate (a root)

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