

> Skills Exam

The following exam is designed to test your ability to recognize and execute the Excel skills presented in this chapter. Read each question carefully and answer the questions in the order they are listed. You should be able to complete this exam in 60 minutes or less.

1. Open the file named `ib_e03_skillsexam`.
2. Type a **SUM** function in cell B9 that adds the values in cells B3 through B8. Correct any ##### signs if necessary.
3. Copy the **SUM** function in cell B9 and paste it into cell C9. Correct any ##### signs if necessary.
4. Type a formula in cell D3 to calculate the growth rate. Your formula should subtract the Value Last Year in cell B3 from the Present Value in cell C3 and divide that result by the Value Last Year in cell B3: **(Present Value – Value Last Year) ÷ Value Last Year**.
5. Format the result in cell D3 to a percentage with 1 decimal place.
6. Copy cell D3 and paste it into cells D4:D9.
7. Type an **AVERAGE** function in cell B10 that calculates the average of cells B3 through B8.
8. Copy cell B10 and paste it into C10.
9. Calculate the average growth rate in cell D10 using the **SUM** and **COUNT** functions. Follow this example: **((Sum of Present Value (C3:C8) ÷ Count of Present Value (C3:C8)) – (Sum of Value Last Year B3:B8 ÷ Count of Value Last Year B3:B8)) / (Sum of Value Last Year B3:B8 ÷ Count of Value Last Year B3:B8)** *
10. Format the result in cell D10 to a percentage with 1 decimal place. The result in D10 should match the value in cell D9.
11. Type a formula in cell E3 that divides the present value in cell C3 by the total of the present values in cell C9. Place an absolute reference on cell C9.
12. Format the result in cell E3 to a percent with 2 decimals. Then, copy cell E3 and paste it to cells E4 through E8.
13. Use the **Payment** function in cell D14 to calculate the monthly mortgage payments. Your function should use cell A14 for the rate, B14 for the periods, and C14 for the present value. Assume that payments are made at the end of the month.
14. Use the **Payment** function in cell E18 to calculate the monthly lease payments. Your function should use cell A18 for the rate, B18 for the periods, C18 for the present value, and D18 for the future value. Assume payments made at the end of the month.
15. Use the **Future Value** function in cell E21 to calculate the future value of all the investments in two years. Your function should use cell D9 for the rate and the number 2 for the periods. The total present value for all investments in cell C9 should be treated as a one-time lump sum investment. Assume that this investment is made at the beginning of the year. Format the result to U.S. currency with 0 decimal places. Correct any ##### signs if necessary.
16. Type a formula in cell E22 that subtracts the total present value of all investments in cell C9 from the future value of all investments in cell E21.
17. Type a formula in cell E23 that multiplies the monthly mortgage payments in cell D14 by 24. Format the result to U.S. currency with 0 decimal places.
18. Type a formula in cell E24 that multiplies the monthly lease payments in cell E18 by 24. Format the result to U.S. currency with 0 decimal places.
19. Type a formula in cell E25 that subtracts the result of adding cells E23 and E24 from cell E22. Format the result to U.S. currency with 0 decimal places. Fix any ##### signs if necessary.
20. Sort the range A2:E8 in ascending order based on the values in the Present Value column.
21. Save and close your file.