

Programming ideas

- 1 Write a program that asks a user to enter their name and age. Display “*name* you are *age* years old”. E.g. if Asim and 15 were entered then it would output “Asim you are 15 years old”.
- 2 Write a program that lets the user enter the temperature in Celsius. Output the temperature in Fahrenheit.
- 3 Write a program that asks the user to enter two numbers. Add them together and output the result.
- 4 Write a program to ask the user to input a number between 1 and 12. Output which month of the year that number is for.
- 5 Write a program that takes a learner’s score in a test out of 100. Decide on the mark that a learners should achieve an A, B, C, D or U for. Output the learner’s grade.
- 6 Write a program that asks the user to enter a code, output whether the code is correct or not.
- 7 Write a program to ask the user to enter 3 numbers. Output which of the numbers is the largest, and which number is the smallest.
- 8 Write a program that outputs the 12 times table.
- 9 Write a program that takes the length of two sides of a right-angled triangle and outputs the hypotenuse.
- 10 Write a program to ask the user to enter a word that has between 5 and 10 characters (inclusive). Output an error if the word is not valid.
- 11 Write a program that asks the user to enter a number, and output the times table for that number.
- 12 Write a program that asks a user to enter a number, then output that quantity of asterisks (*).
- 13 Write a simple calculator where the user enters two numbers and an operator. Output the result of the calculation.
- 14 Write a program to output the numbers 1.0, 1.1, 1.2, etc. from 1.0 up to 2.0.
- 15 Write a countdown program that outputs the numbers 10 down to 0 and then displays “blast off”.
- 16 Ask a user to enter 10 numbers. Output the largest and smallest number.
- 17 Ask the user to enter a number, output whether the number is odd or even.
- 18 Write a program to perform a Caesar cypher on a word that is input by the user.
- 19 Ask the user to enter a sentence. Output the number of characters (excluding spaces) in the sentence, and to output the number of vowels.
- 20 Write a program that takes a number from the user and then increases it by 5%. It should keep doing this until the number is more than 500. Output the number of times the number was increased by 5%.

- 21** Write a program that outputs the Fibonacci sequence from 1 to 500.
- 22** Write a program that creates a username for a user. It consists of the first 3 letters of the last name and the first three letters of their first name.
- 23** Write a program that asks the user to enter a sentence, then output the sentence in reverse.
- 24** Write a program that reads 10 numbers from the user and stores them in an array. Total and output the numbers from the array, and the average number.
- 25** Ask a user to enter their date of birth in the format DD/MM/YY. Output their date of birth in text, e.g. Your birthday is on the first of February 2000.
- 26** Store a set of letters in an array. Ask the user to input a letter to search for. Output whether the letter is in the array or not.
- 27** Write a function that takes two numbers as input, multiplies them together and returns the result.
- 28** Write a procedure that outputs the numbers 1 to 100.
- 29** Write a program that asks the user to enter a number. Use a procedure to output the numbers 1 to the number entered.
- 30** Write a program that stores a sentence. Ask the user to enter a word. Output whether the word input also exists in the stored sentence.
- 31** Write a program to play battleships. The computer should store the positions of its ships in a 2D array. The user should guess the positions of the ships and the program should output if they are correct or not. The game ends when either the user has identified all the squares, or the user has had a set number of guesses.
- 32** Write a multiple choice quiz program. The user should be asked 10 questions and the program should output how many they got correct.
- 33** Write a program that reads a number from a text file. Output all the numbers between 1 and the number from the file.