

# Laboratory work 5

all the programs MUST be written **C** c

## problem 1

Here's a simplified version of the Beaufort scale, which is used to estimate wind force:

Speed (knots)	Description
Less than 1	Calm
1-3	Light air
4-27	Breeze
28-47	Gale
48-63	Storm
Above 63	Hurricane

Write a program that asks the user to enter a wind speed (in knots), then displays the corresponding description.

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## problem 2

In one state, single residents are subject to the following income tax:

Income	Amount of tax
Not over \$750	1% of income
\$750-\$2,250	\$7.50 plus 2% of amount over \$750
\$2,250-\$3,750	\$37.50 plus 3% of amount over \$2,250
\$3,750-\$5,250	\$82.50 plus 4% of amount over \$3,750
\$5,250-\$7,000	\$142.50 plus 5% of amount over \$5,250
Over \$7,000	\$230.00 plus 6% of amount over \$7,000

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## problem 3

write a program in **C** `c` that ask the user a four-digit number and tells the user if the number is a **happy (symmetrical)** number. For example

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1  enter the number: 9339
2  the number is happy (symetrical)
```

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