## NCFE Level 2 Functional Skills Qualification in Mathematics (603/5060/X)

## Paper number: Practice P001269 Section A: Non-calculator Test

Time allowed: $\quad 30$ minutes

## Learner instructions

- Answer all questions.
- Read each question carefully.
- Write your answers in the spaces provided.
- Show your working, as marks may be awarded for working.
- State units in your answers, where appropriate.
- Check your work.


## Learner information

- Section A contains Activity 1 only.
- The maximum mark for this section is 15.
- The marks available for each question are shown in brackets.


## Resources

You will need a:

- pen, with black or blue ink
- pencil and eraser
- 30 cm ruler

| To be completed <br> by the examiner | Mark |  |  |  |
| :--- | :--- | :--- | :---: | :---: |
| A | Activity 1 | $/ 15$ |  |  |
| B | Activity 2 | $/ 15$ |  |  |
|  | Activity 3 | $/ 15$ |  |  |
| Activity 4 |  |  |  | $/ 15$ |
| TOTAL MARK | $/ 60$ |  |  |  |

- protractor.

If extra pages are used, please make sure your name and centre name is on them and they are securely fastened to this booklet.

Please complete the details below clearly and in BLOCK CAPITALS.

Learner name

Centre name
$\square$ Centre number $\square$

Do not turn over until the invigilator tells you to do so.

## FUNCTIONAL SKILLS ONLINE COURSES


(v) Explainer videos on every topic
(v) Quick-fire style mutiple choice questions
© Test your knowledge with exam-style questions
(v) Written solutions for all questions

- Your answers are analysed to determine your Current Level
- Suggested courses for you to enrol on based on your calculated level
- Always know the level you are currently working at
v Determine when you are ready to sit your exam


© See your progress through as you progress through each topic area
(v) Get your average scores for practice questions, topic tests and mock exams
(V) View all practice question, topic test and mock exam attempts over time
(View historical attempts to analyse your progress over time


## Activity 1: Office move

1 (a) Emma has been asked to organise an office move.

The health \& safety guidelines recommend a minimum area of $9.75 \mathrm{~m}^{2}$ for each employee.

Calculate the area required for 27 employees.
$27 \times 9.75 \mathrm{~m}^{2}=$

Your answer:
263.25 ,
$\mathbf{m}^{2}$

1 (b) Emma is asked to find an office with a floor area of approximately $400 \mathrm{~m}^{2}$
She compares two office spaces.

Not drawn accurately

Office A


Office B


The area of Office $\mathbf{A}$ is $411.92 \mathrm{~m}^{2}$
Which office has an area closest to $400 \mathrm{~m}^{2}$ ?
Show your working.

Office $B$ :

$$
\begin{aligned}
& 24.75-(9+4.75)=11 \mathrm{~m} . \\
& 25 \times 11=27 \mathrm{~m}^{2} . \\
& \frac{1}{2}(9+13.75) \times 10=113.75 \mathrm{~m}^{2} .
\end{aligned}
$$

$113.75+275=388.75 \mathrm{~m}^{2}$,
which is $11.25 \mathrm{~m}^{2}$ away.
This is closer to 400 m .

1 (c) The employees looked at the office plans and held a vote on which office they prefer.

- A third voted for Office A.
- Two-fifths said they did not mind which office was chosen.
- The rest voted for Office B.

What fraction of employees voted for Office B?

$$
1 / 3+2 / 5=5 / 15+6 / 15=11 / 15
$$

$$
\Rightarrow \quad 4 / 15
$$



1(d) Emma has been asked to estimate the cost of renting an office.
The graph shows how the annual cost varies with the total area of the office space.

Annual cost of renting office space


The annual cost of renting office space will increase by $5.75 \%$ next year.
Estimate the cost of renting a $400 \mathrm{~m}^{2}$ office next year.

Approximately 166000 this year.

$$
66000 \times 1.0575=£ 69795
$$

Your answer: £ 69795

1 (e) Emma gets this quote for office furniture:

| Office Genius Ltd |  |
| :--- | :--- |
| To supply and install furniture: |  |
| 27 desks @ $£ 260$ | $£ 7020$ |
| 27 chairs @ £110 | $£ 970$ |
| 10 filing cabinets @ $£ 200$ | $£ 2000$ |
| 1 meeting table | $£ 1635$ |
| 12 meeting chairs @ £250 | $£ 3000$ |
| Delivery \& Installation | $£ 1875$ |
| Total | $£ 18500$ |

What fraction of the quote is for Delivery \& Installation?
Show your answer in its simplest form.


1 (f) Another option is to rent a fully furnished office.
Prices vary according to the length of the rental period.

| Rental period | Price per calendar <br> month |
| :---: | :---: |
| 1 year | $£ 10000$ |
| 5 years | $£ 8500$ |

Calculate the percentage discount per month, if the office is rented for 5 years rather than for 1 year.

[Total marks: 15]

This is the end of Section A.

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