

In a computer maths game, players have to use clues to solve a series of problems to get to the next level. You are playing the game.
a. Your first clue is to increase the number of counters shown by $50 \%$. Show how many counters are needed for your answer.
Show all your working so we can understand your thinking.

b. Your second clue is $25 \%$ is 46 . Use the clue to work out the amount that will unlock each door. Write the amounts in the boxes below.
Show all your working so we can understand your thinking.

$\square$

c. You earn points as you progress through the levels. You have to make a final choice to finish the game. Which door do you choose and why?
Explain your reasoning using as much mathematics as you can.


Door 2


Door 3


## SCORING RUBRIC

| COMPUTER GAME ... |  |  |
| :---: | :--- | :---: |
| TASK: | RESPONSE: | SCORE |
| a. | No response, or incorrect (eg, 16) | $\mathbf{0}$ |
|  | Incomplete (eg, finds 50\%), or correct (12 counters), with little/no <br> explanation | $\mathbf{1}$ |
|  | Correct (12 counters), with explanation, eg, 50\% is 4, 4 added to 8 <br> is 12 | $\mathbf{2}$ |
|  | No response or incorrect with little/no working and/or explanation | $\mathbf{0}$ |
|  | A least one correct (9.2, 23, 110.4), with appropriate working, or <br> two correct with little/no working | $\mathbf{1}$ |
|  | A least two correct (9.2, 23, 110.4), with appropriate working, or <br> three correct with little/no working | $\mathbf{2}$ |
|  | All correct (9.2, 23, 110.4), with appropriate working | No response or incorrect with little/no working and/or explanation, <br> eg, "all 40\%" |
|  | Incorrect (Door 1 or Door 2), but some evidence of mathematical <br> reasoning/working | $\mathbf{0}$ |
|  | Correct (Door 3), with little/no mathematical reasoning, eg, "its <br> more points" | $\mathbf{2}$ |
|  | Correct (Door 3), with appropriate mathematical reasoning/working | $\mathbf{3}$ |

