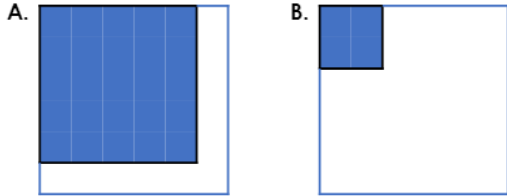


Reasoning and problem solving

1a. Davey is choosing a paving slab to use to cover the space below. He wants the slabs to cover the area completely.

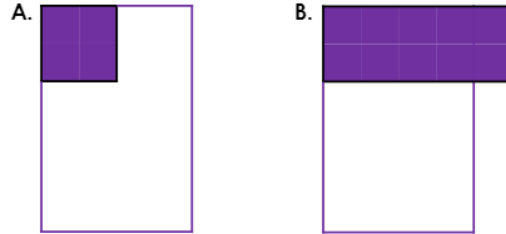


Which slab should he use? Explain your answer.



R

1b. Maya is choosing a brick to use to cover the space below. She wants the bricks to cover the area completely.



Which brick should she use? Explain your answer.



R

2a. Christy is making a 4-sided shape using all of the squares below.

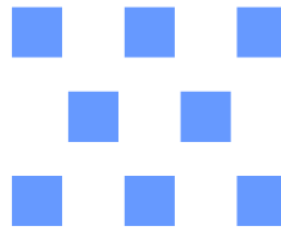


Create two shapes Christy could make. What is the area of each shape?



PS

2b. Melody is making a 4-sided shape using all of the squares below.



Create two shapes Melody could make. What is the area of each shape?



PS

3a. Which shape is the odd one out? Use the reference square to help you.

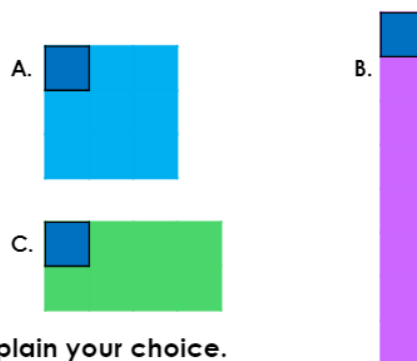


Explain your choice.



R

3b. Which shape is the odd one out? Use the reference square to help you.

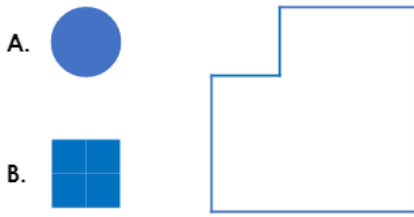


Explain your choice.



R

4a. Aiden is choosing a carpet tile to use to cover the space below. He wants the tiles to cover the area completely.

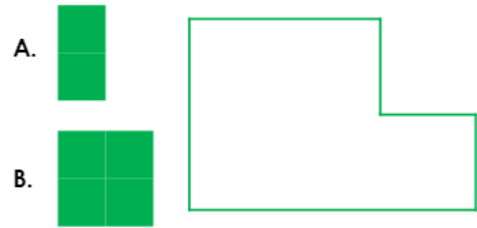


Which tile should he use? Explain your answer.



R

4b. Amy is choosing which wall tile to use to cover the space below. She wants the tiles to cover the area completely.




Which tile should she use? Explain your answer.



R

5a. Keira has started making a 6-sided shape using squares. The surface of her shape will have an area of 15 squares.



reference square 

Use the reference square to work out how many squares need adding, then find two ways to complete Keira's shape.



PS

5b. Joti has started making a 6-sided shape using squares. The surface of his shape will have an area of 10 squares.




reference square 

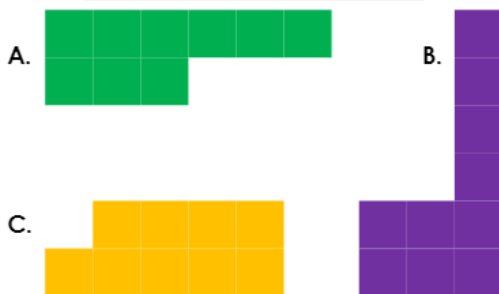
Use the reference square to work out how many squares need adding, then find two ways to complete Joti's shape.



PS

6a. Which shape is the odd one out? Use the reference square to help you.

reference square 



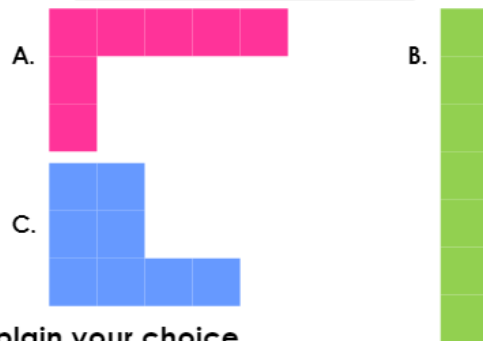
Explain your choice.



R

6b. Which shape is the odd one out? Use the reference square to help you.

reference square 



Explain your choice.



R

Answers

Reasoning and Problem solving

Developing

1a. Davey should use slab B because slab A does not cover the space completely.

2a. When using all squares, the area is always 16 squares. Various shapes, for example:



3a. C is the odd one out because it has an area of 10 squares. A and B have an area of 12 squares.

Expected

4a. Aiden should use tile B because tile A does not cover the space completely.

5a. 10 squares need adding. Various shapes, for example:



6a. B is the odd one out because it has an area of 10 squares. A and C have an area of 9 squares.

Developing

1b. Maya should use brick A because brick B would not fit exactly as it would overlap.

2b. When using all squares, the area is always 8 squares. Various shapes, for example:

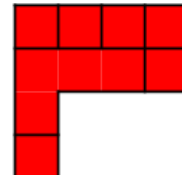


3b. A is the odd one out because it has an area of 9 squares. B and C have an area of 8 squares.

Expected

4b. Amy could use either tile. Two of tile A could be used to cover the same space as tile B and both would cover the area.

5b. 6 squares need adding. Various shapes, for example:



6b. C is the odd one out because it has an area of 8 squares. A and B have an area of 7 squares.

Day 1