

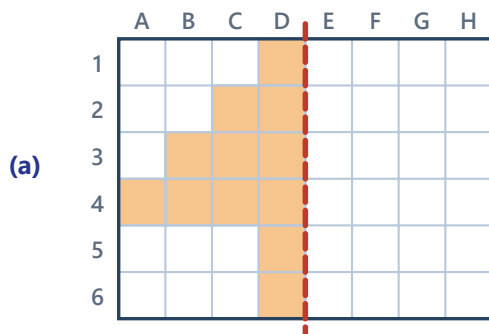
Year 4: Completing symmetrical figures: answers

Year 4 - Shapes, Angles and Symmetry - Lesson 9.7

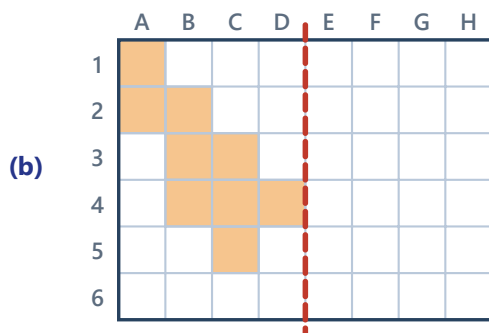
Answers. Final answers to the worksheet questions. Full step-by-step solutions for every question are free at websink.site/ks2-sats/maths/year-4/ch09-shapes-angles-symmetry/completing-symmetrical-figures/

Exercise 9H Complete the symmetrical figure Non-calculator

- 1 Shade squares to complete each figure. The mirror line is vertical. Write the squares you shade.

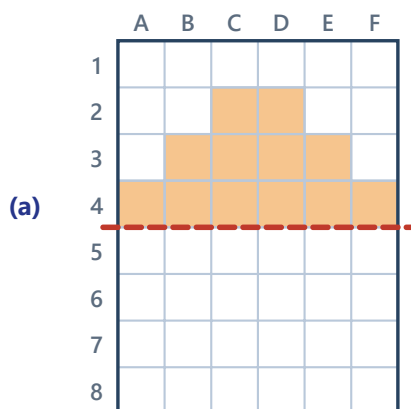


Answer: Shade 12 more squares: E1, E2, E3, E4, E5, E6, F2, F3, F4, G3, G4, H4



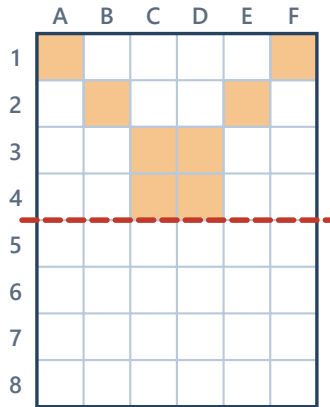
Answer: Shade 9 more squares: E4, F3, F4, F5, G2, G3, G4, H1, H2

- 2 Shade squares to complete each figure. The mirror line is horizontal.



Answer: Shade 12 more squares: A5, B5, B6, C5, C6, C7, D5, D6, D7, E5, E6, F5

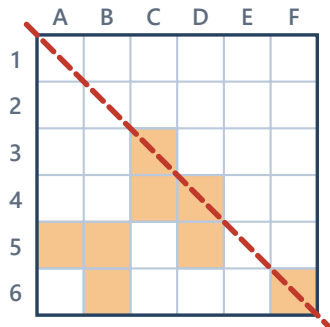
(b)



Answer: Shade 8 more squares: A8, B7, C5, C6, D5, D6, E7, F8

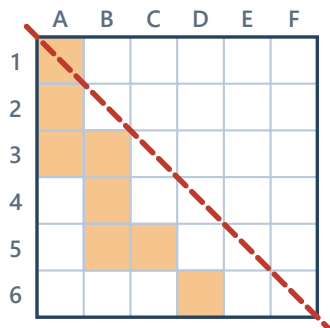
3 The mirror line is a diagonal line. Shade squares to complete each figure.

(a)



Answer: Shade 5 more squares: D3, E1, E2, E4, F2

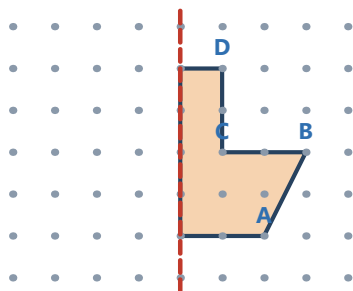
(b)



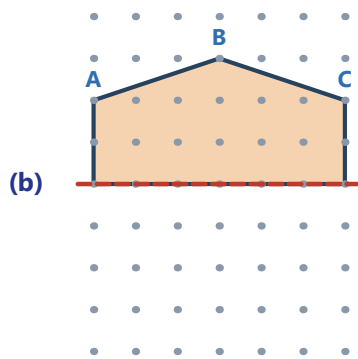
Answer: Shade 7 more squares: B1, C1, C2, D2, E2, E3, F4

4 Complete the shape so that it is symmetrical about the mirror line. Say what the completed shape is.

(a)

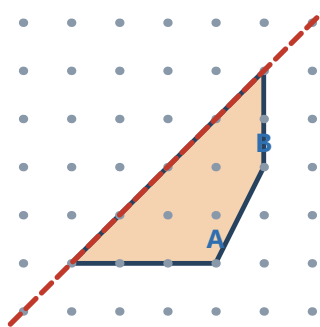


Answer: The completed shape is an octagon (8 sides)



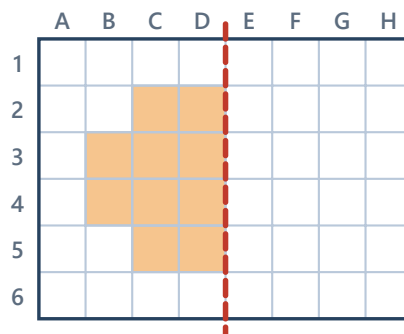
Answer: The completed shape is a hexagon (6 sides)

- 5 Complete the shape so that it is symmetrical about the diagonal mirror line. Say what the completed shape is.



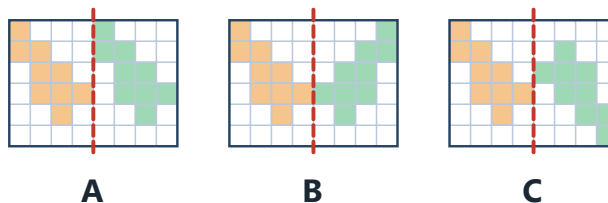
Answer: The completed shape is a hexagon (6 sides)

- 6 How many squares will be shaded when the figure is complete? The mirror line is vertical.



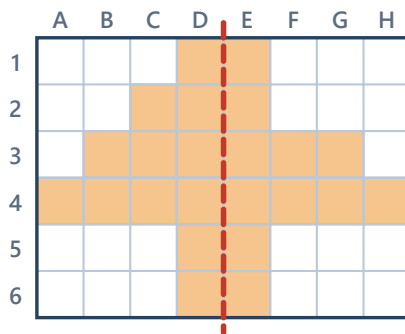
Answer: 20

- 7 Which picture shows the shape correctly reflected in the mirror line? Write the letter.



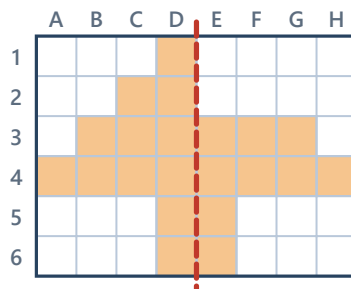
Answer: B

- 8 Zainab completed this figure. She made one mistake. Which square is wrong, and where should it go?



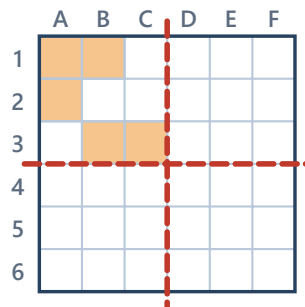
Answer: is wrong; it should be F2

- 9 This pattern should be symmetrical about the mirror line, but some squares have been left out. Which squares must be shaded? Write them.



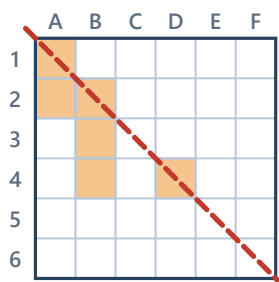
Answer: Shade 3 squares: E1, E2, F2

- 10 This pattern has **two** mirror lines. Complete it so that it is symmetrical about both lines. How many squares are shaded in the finished pattern?



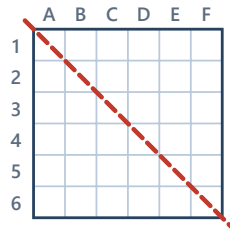
Answer: 20

- 11 The grid shows 6 shaded squares and a diagonal mirror line. Mia says, "When the figure is complete there will be 12 shaded squares, because $6 + 6 = 12$." Is Mia right? Explain.



Answer: No. 3 squares are on the mirror line. There will be 9

- 12 The mirror line is the diagonal line from the top left corner to the bottom right corner of a square grid. Is each person right?



- (a) Priya says the partner of D2 is B4.

Answer: Yes. The partner is B4

- (b) Noah says the partner of C4 is C3.

Answer: No. The partner is D3