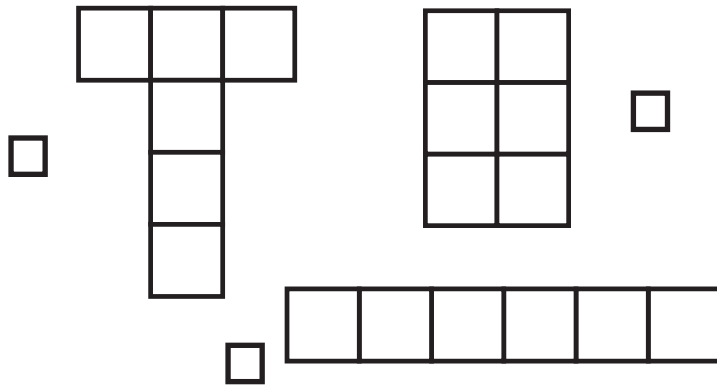


Big Maths Beat That!: Teacher Notes

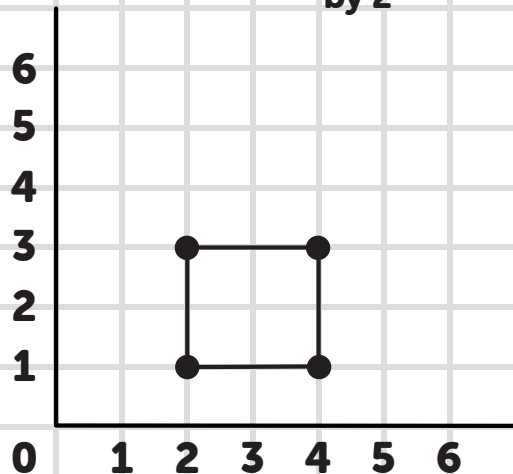
SAFE Challenge 17			
	Step Location in the SAFE framework		Title of Step
	Progress Drive	Step No.	
Q1	Shape: 3D Shapes	21	I recognise different nets of cubes
Q2	Shape: Position & Direction	26	I can move a shape in one direction
Q3	Amounts: Amounts of Turn	22	I can accurately estimate acute, obtuse and reflex angles
Q4	Fractions: Fractions of a Set	13	I can go beyond my tables to find fractions of an amount
Q5	Fractions: Fractions: Counting	18	I can identify fractions less than 1, more than 1 or equal to 1
Q6	Fractions: Fractions: Calculation	8	I can find equivalent fractions
Q7	Fractions: Fractions: Calculation	10	I can find equivalent fractions ready for calculating... and calculate with them
Q8	Explaining Data: Line Graphs	6	I can use a line graph to answer a range of information questions
Q9	Dangerous Maths: Pattern Spotting	14	I can spot a steady gap and use it to find 2 consecutive missing numbers
Q10	Dangerous Maths: Algebra	11	I can use my tables Learn Its to find the value of missing numbers represented by letters

1 Which one is a true net of a cube?

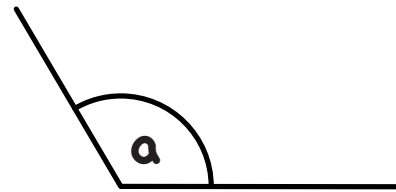


2

Translate the shape by increasing the x coordinate by 2



3 Estimate angle 'a'



4

$$\frac{3}{5} \text{ of } 735 =$$

5

Which of these fractions is less than 1?

$$\frac{14}{13} \quad \frac{13}{14} \quad \frac{13}{13}$$

6

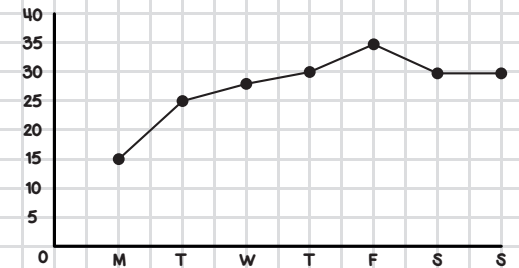
$$\frac{3}{4} = \frac{\quad}{16}$$

7

$$\frac{15}{16} - \frac{3}{4} =$$

8

Steve went running every day. He made a line graph to show how many minutes he ran for each day.



How many days did he run for more than 25 minutes?

9

Complete the number pattern

150, 161, 172, ,

10

$$4 \times = 24$$

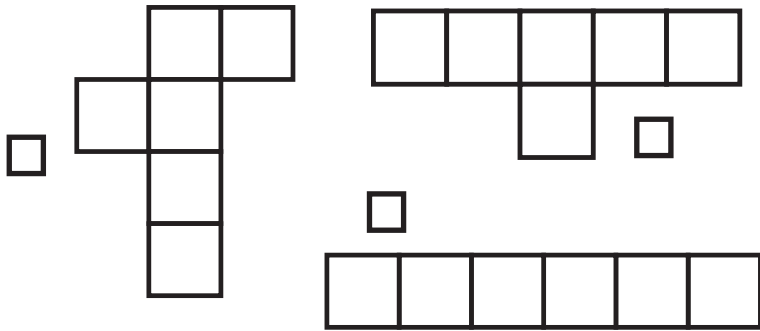
$$\times =$$



MY LAST SCORE?!

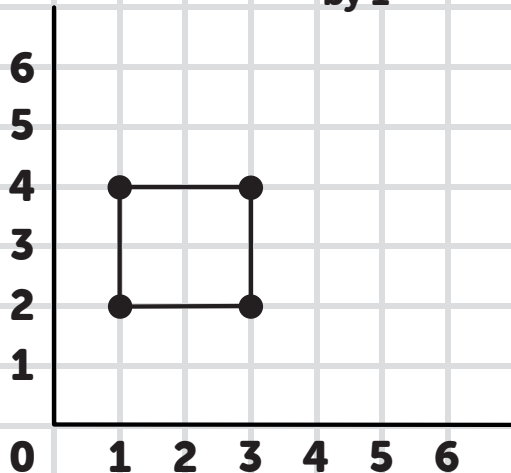
HAVE I BEAT THAT?!

1 Tick the true net of a cube?

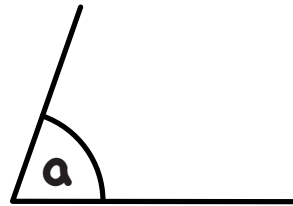


2

Translate the shape by increasing the y coordinate by 1



3 Estimate angle 'a'



4

$$\frac{2}{6} \text{ of } 216 =$$

5

Which of these fractions is more than 1?

$$\frac{15}{14} \quad \frac{14}{14} \quad \frac{13}{13}$$

6

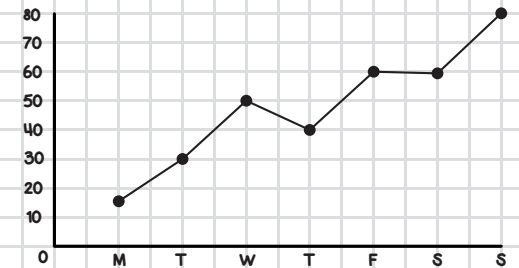
$$\frac{2}{3} = \frac{\quad}{18}$$

7

$$\frac{7}{8} - \frac{3}{16} =$$

8

Anna counted the number of rabbits in the field every day.



How many rabbits did she spot at the weekend?

9

Complete the number pattern

214, 228, 242, ,

10

$$5 \times = 35$$

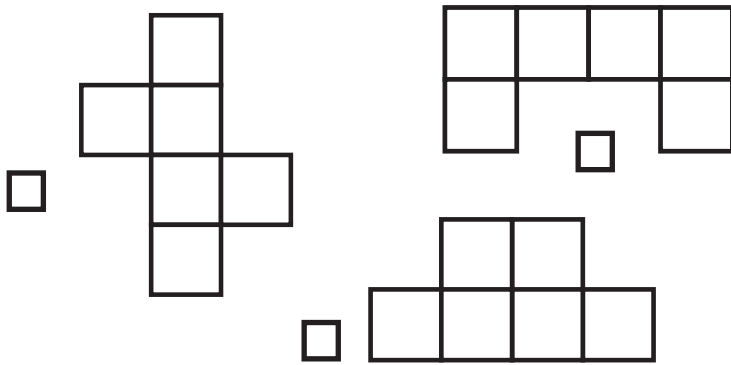
$$\times =$$



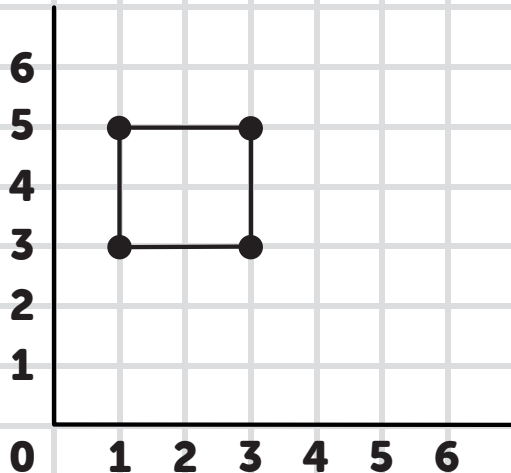
MY LAST SCORE?!

HAVE I BEAT THAT?!

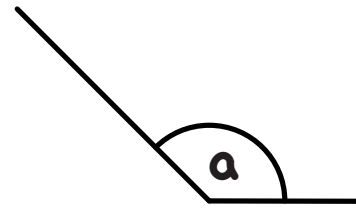
1 Tick the true net of a cube?



2 Translate the shape by increasing the x coordinate by 3



3 Estimate angle 'a'



4 $\frac{3}{7}$ of 112 =

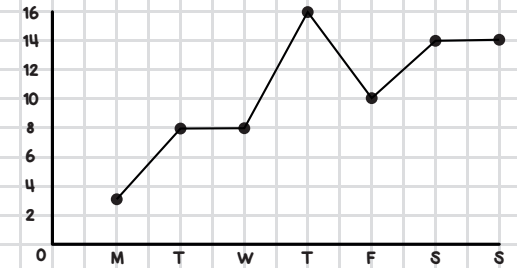
5 Which of these fractions is equal to 1?

$$\frac{16}{17} \quad \frac{16}{16} \quad \frac{15}{16}$$

6 $\frac{3}{10} = \frac{\quad}{30}$

7 $\frac{4}{6} - \frac{7}{18} =$

8 James recorded the number of lengths he swam for a week.



Which day did James swim the most lengths?

9 Complete the number pattern

330, 315, 300, ,

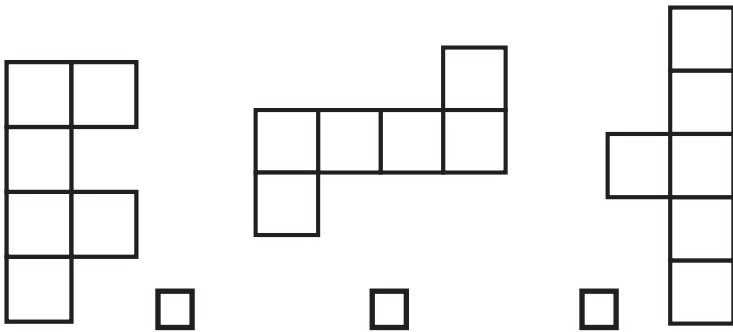
10 $4 \times = 28$
 $\times =$



MY LAST SCORE?!

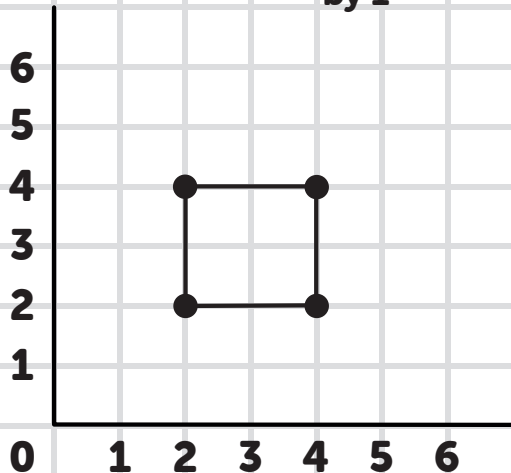
HAVE I BEAT THAT?!

1 Tick the true net of a cube?



2

Translate the shape by increasing the y coordinate by 1



3 Estimate angle 'a'



4

$$\frac{2}{5} \text{ of } 85 =$$

5

Which of these fractions is more than 1?

$$\frac{15}{15} \quad \frac{18}{17} \quad \frac{15}{16}$$

6

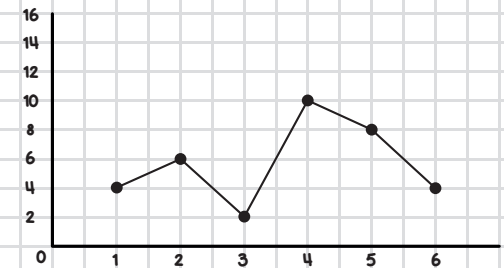
$$\frac{3}{4} = \frac{\quad}{20}$$

7

$$\frac{11}{15} + \frac{1}{5} =$$

8

Alex recorded the number of goals she scored over 6 months.



How many goals did Alex score in months 4, 5 and 6?

9

Complete the number pattern

431, 445, 459, ,

10

$$2x = 16$$

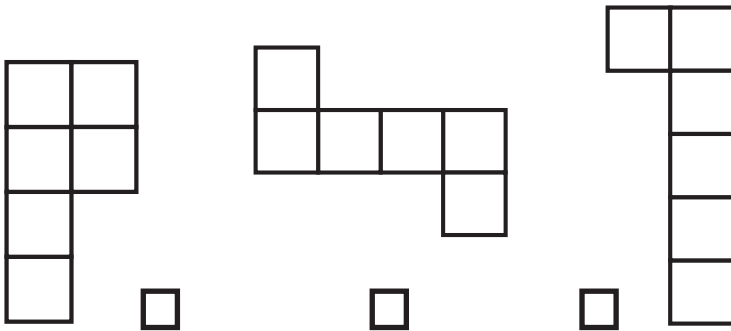
$$x =$$



MY LAST SCORE?!

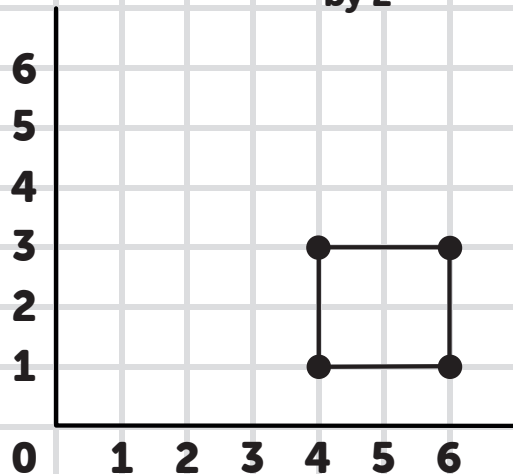
HAVE I BEAT THAT?!

1 Tick the true net of a cube?



2

Translate the shape by increasing the y coordinate by 2



3 Estimate angle 'a'



4

$$\frac{5}{8} \text{ of } 144 =$$

5

Which of these fractions is less than 1?

$$\frac{12}{13} \quad \frac{14}{14} \quad \frac{16}{15}$$

6

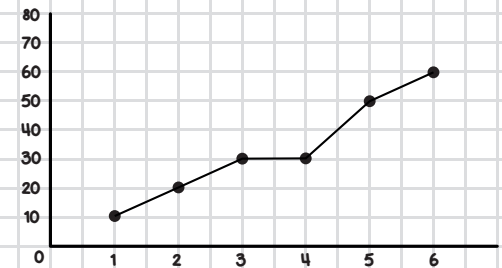
$$\frac{4}{5} = \frac{\quad}{15}$$

7

$$\frac{1}{6} + \frac{3}{24} =$$

8

A class recorded the amount of rainfall over 6 weeks.



Which week had the least rainfall?

9

Complete the number pattern

720, 709, 698, ,

10

$$7 \times = 49$$

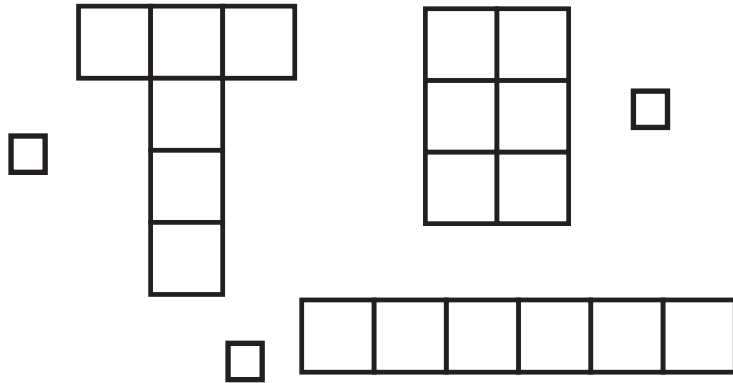
$$\times =$$

MY LAST SCORE?!

HAVE I BEAT THAT?!

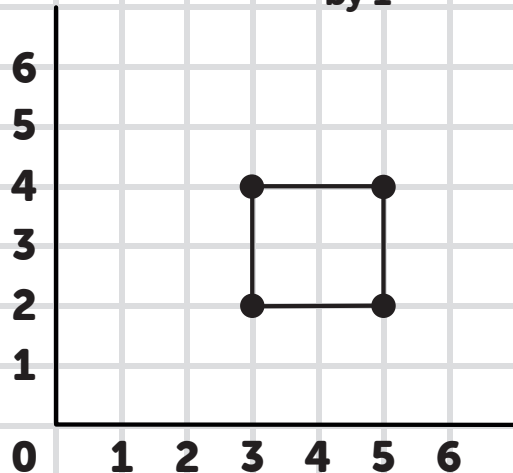


1 Tick the true net of a cube?

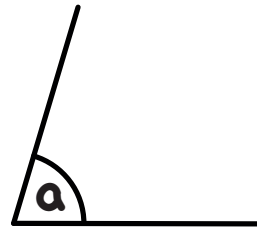


2

Translate the shape by decreasing the x coordinate by 1



3 Estimate angle 'a'



4

$$\frac{6}{9} \text{ of } 153 =$$

5

Which of these fractions is equal to 1?

$$\frac{17}{17} \quad \frac{15}{16} \quad \frac{16}{15}$$

6

$$\frac{6}{10} = \frac{\quad}{40}$$

7

$$\frac{5}{9} + \frac{1}{18} =$$

8

A shop recorded their stock of chocolate bars over 6 weeks.



Which week did the shop have 50 chocolate bars remaining?

9

Complete the number pattern

120, 140, 160, ,

10

$$6 \times = 36$$

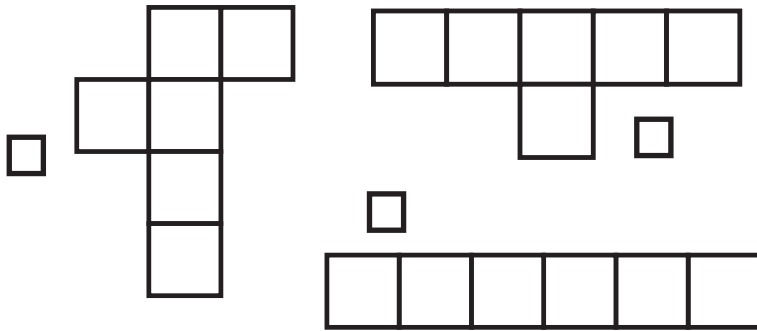
$$\times =$$



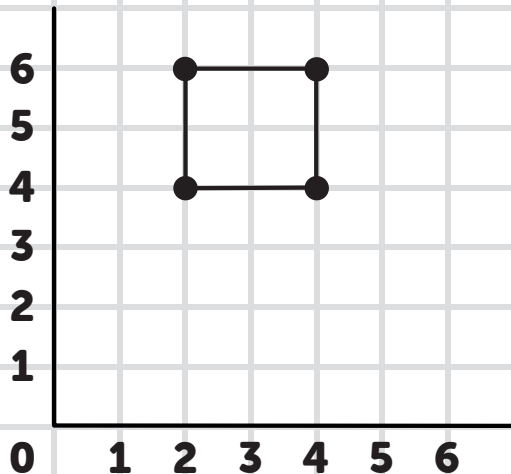
MY LAST SCORE?!

HAVE I BEAT THAT?!

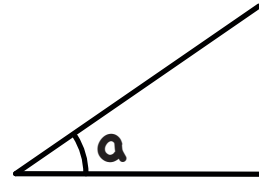
1 Tick the true net of a cube?



2 Translate the shape by decreasing the y coordinate by 2



3 Estimate angle 'a'



4 $\frac{5}{7}$ of 161 =

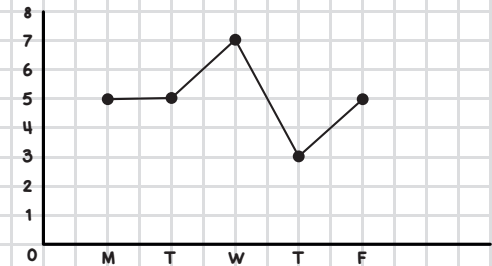
5 Which of these fractions is equal to 1?

$$\frac{14}{15} \quad \frac{15}{14} \quad \frac{14}{14}$$

6 $\frac{1}{5} = \frac{\quad}{25}$

7 $\frac{7}{8} - \frac{3}{24} =$

8 A class recorded how many pupils woke up late in a week.



How many pupils woke up late on Tuesday and Wednesday?

9 Complete the number pattern

255, 242, 229, ,

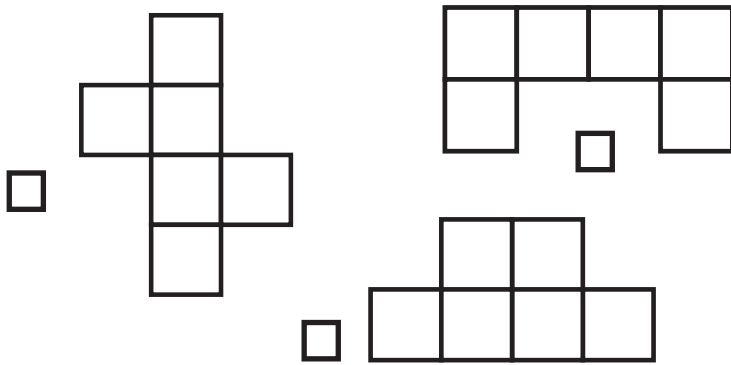
10 $3x = 21$
 $x =$



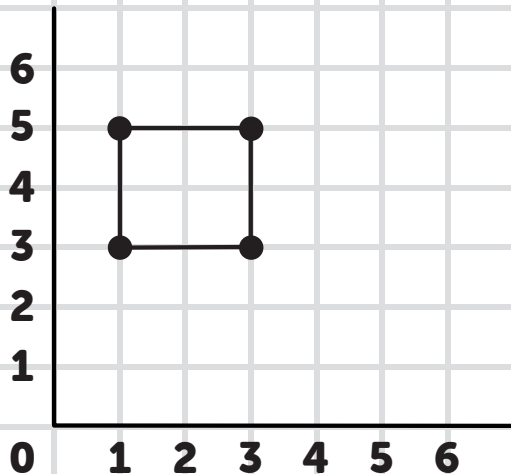
MY LAST SCORE?!

HAVE I BEAT THAT?!

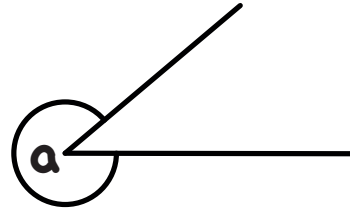
1 Tick the true net of a cube?



2 Translate the shape by increasing the x coordinate by 1



3 Estimate angle 'a'



4 $\frac{3}{5}$ of 115 =

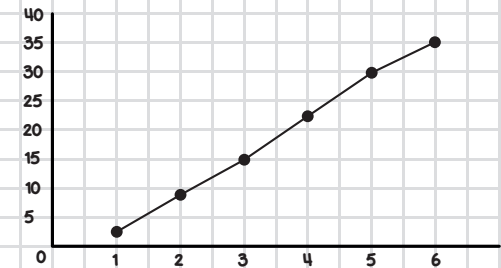
5 Which of these fractions is less than 1?

$$\frac{13}{13} \quad \frac{15}{14} \quad \frac{13}{14}$$

6 $\frac{2}{4} = \frac{\quad}{12}$

7 $\frac{1}{7} + \frac{1}{14} =$

8 A football team recorded their goals tally each month for a season.



How many goals did the team score in months 5 and 6?

9 Complete the number pattern

301, 319, 337, ,

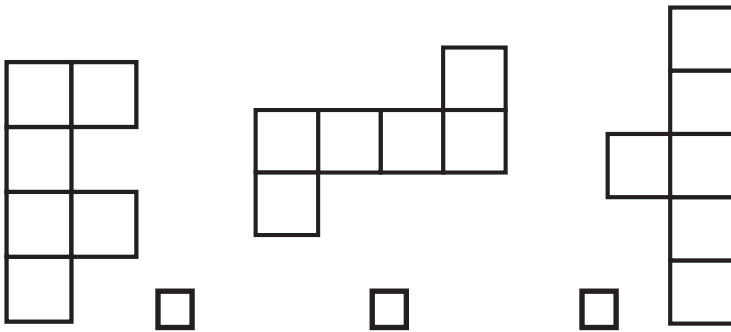
10 $8 \times = 24$
 $\times =$



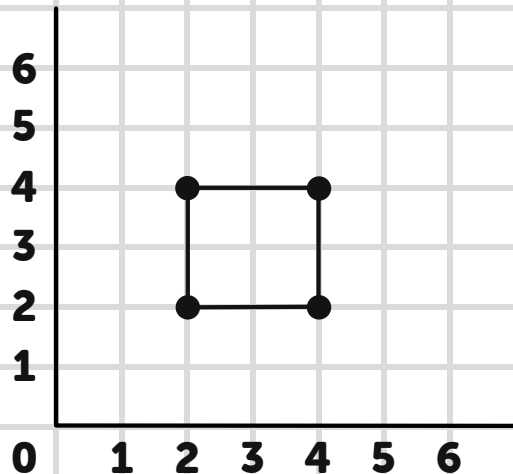
MY LAST SCORE?!

HAVE I BEAT THAT?!

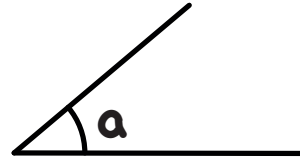
1 Tick the true net of a cube?



2 Translate the shape by increasing the y coordinate by 1



3 Estimate angle 'a'



4 $\frac{7}{8}$ of 136 =

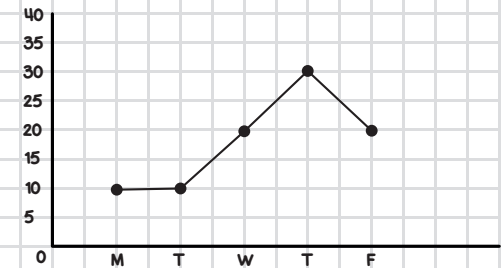
5 Which of these fractions is more than 1?

$$\frac{17}{17} \quad \frac{16}{17} \quad \frac{17}{16}$$

6 $\frac{1}{2} = \frac{\quad}{8}$

7 $\frac{2}{8} + \frac{11}{32} =$

8 A class recorded the number of cars that went past school in a week.



Which day did the most cars go past?

9 Complete the number pattern

145, 131, 117, ,

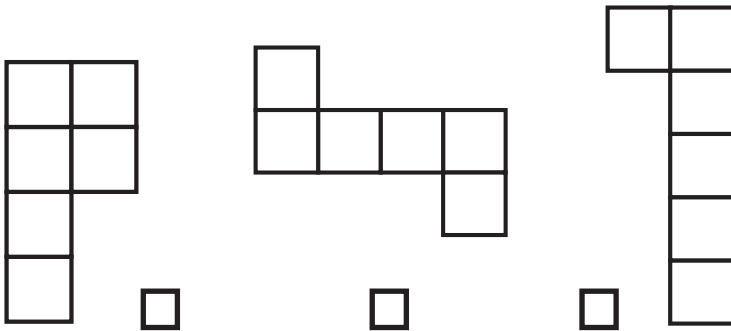
10 $9 \times = 45$
 $\times =$

MY LAST SCORE?!

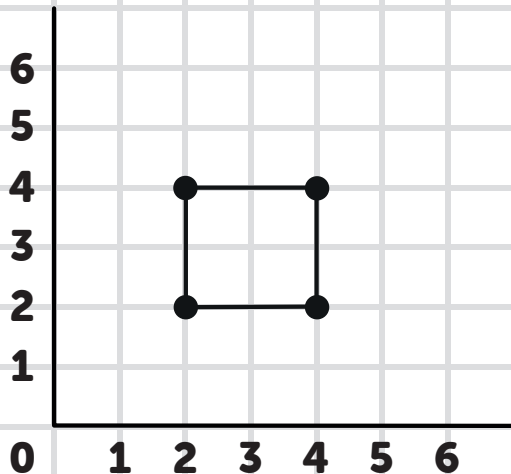
HAVE I BEAT THAT?!



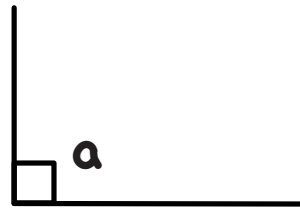
1 Tick the true net of a cube?



2 Translate the shape by increasing the x coordinate by 2



3 Estimate angle 'a'



4 $\frac{8}{9}$ of 162 =

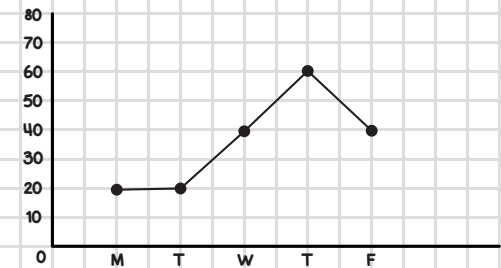
5 Which of these fractions is equal to 1?

$$\frac{18}{19} \quad \frac{19}{18} \quad \frac{19}{19}$$

6 $\frac{1}{4} = \frac{\quad}{20}$

7 $\frac{6}{8} - \frac{19}{32} =$

8 A team recorded how many points they scored during practice in a week.



How many points did they score on Thursday and Friday?

9 Complete the number pattern

400, 417, 434, ,

10 $5x = 40$
 $x =$



MY LAST SCORE?!

HAVE I BEAT THAT?!

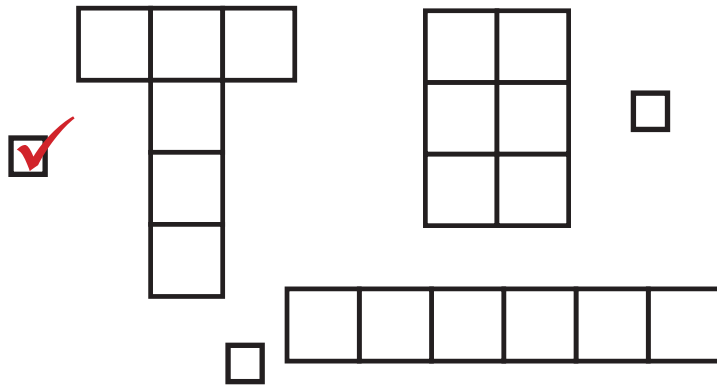
ANSWERS

SAFE 17

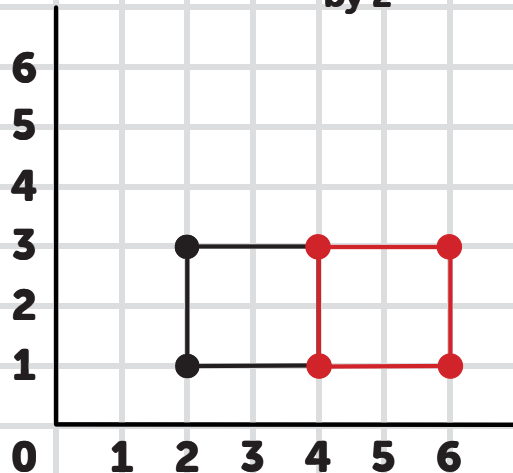
SET: 1

/10

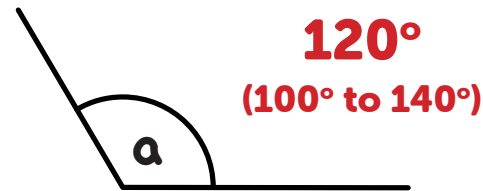
1 Which one is a true net of a cube?



2 Translate the shape by increasing the x coordinate by 2



3 Estimate angle 'a'



4 $\frac{3}{5}$ of 735 =
441

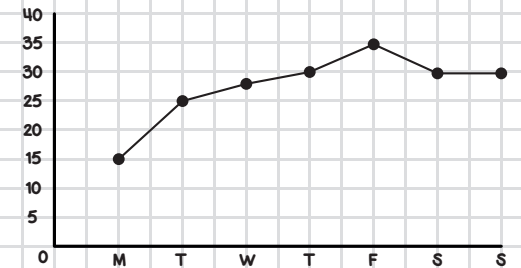
5 Which of these fractions is less than 1?

$\frac{14}{13}$ $\frac{13}{14}$ $\frac{13}{13}$

6 $\frac{3}{4} = \frac{12}{16}$

7 $\frac{15}{16} - \frac{3}{4} = \frac{3}{16}$

8 Steve went running every day. He made a line graph to show how many minutes he ran for each day.



How many days did he run for more than 25 minutes?

5 days

9 Complete the number pattern

150, 161, 172, **183**, **194**

10 $4 \times = 24$
 $\times = 6$



MY LAST SCORE?!

HAVE I BEAT THAT?!

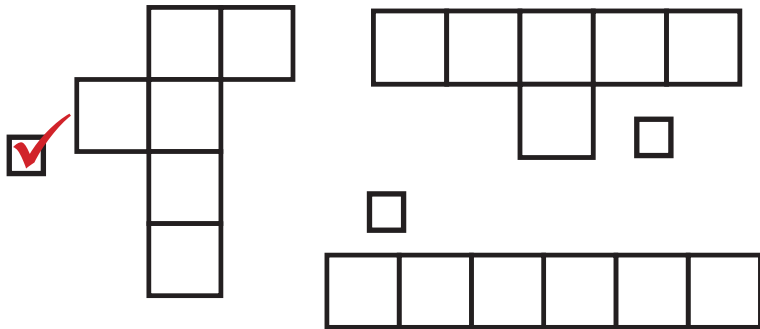
ANSWERS

SAFE 17

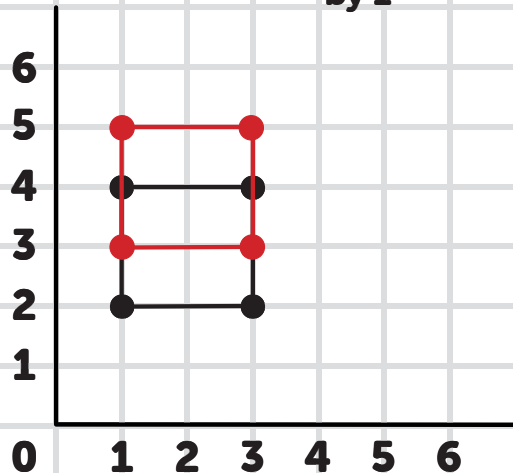
SET: 2

/10

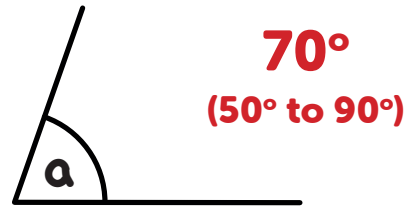
1 Tick the true net of a cube?



2 Translate the shape by increasing the y coordinate by 1



3 Estimate angle 'a'



4 $\frac{2}{6}$ of 216 =
72

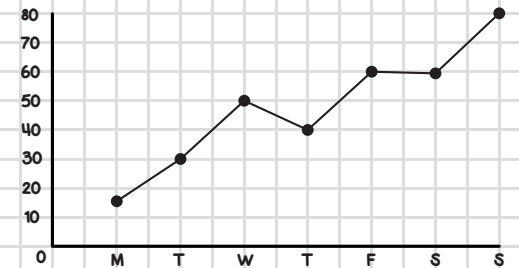
5 Which of these fractions is more than 1?

$\frac{15}{14}$ $\frac{14}{14}$ $\frac{13}{13}$

6 $\frac{2}{3} = \frac{12}{18}$

7 $\frac{7}{8} - \frac{3}{16} = \frac{11}{16}$

8 Anna counted the number of rabbits in the field every day.



How many rabbits did she spot at the weekend?

140 rabbits

9 Complete the number pattern

214, 228, 242, **256**, **270**

10 $5 \times = 35$
 $\times = 7$



MY LAST SCORE?!

HAVE I BEAT THAT?!



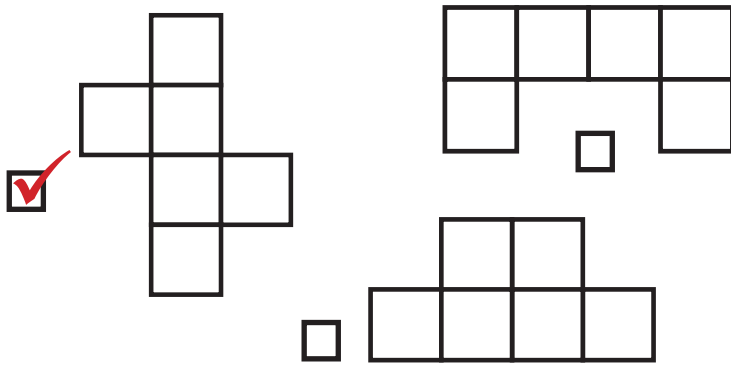
ANSWERS

SAFE 17

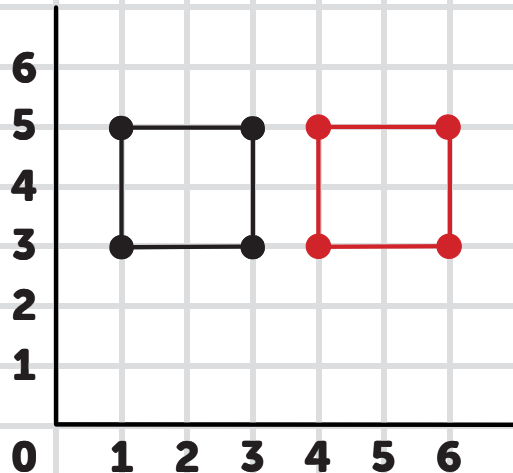
SET: 3

/10

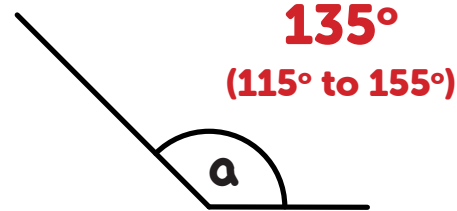
1 Tick the true net of a cube?



2 Translate the shape by increasing the x coordinate by 3



3 Estimate angle 'a'



4 $\frac{3}{7}$ of 112 =
48

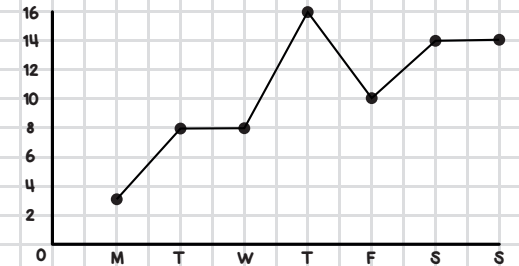
5 Which of these fractions is equal to 1?

$\frac{16}{17}$ $\frac{16}{16}$ $\frac{15}{16}$

6 $\frac{3}{10} = \frac{9}{30}$

7 $\frac{4}{6} - \frac{7}{18} = \frac{5}{18}$

8 James recorded the number of lengths he swam for a week.



Which day did James swim the most lengths?

Thursday

9 Complete the number pattern

330, 315, 300, **285**, **270**

10 $4x = 28$
 $x = 7$



MY LAST SCORE?!

HAVE I BEAT THAT?!



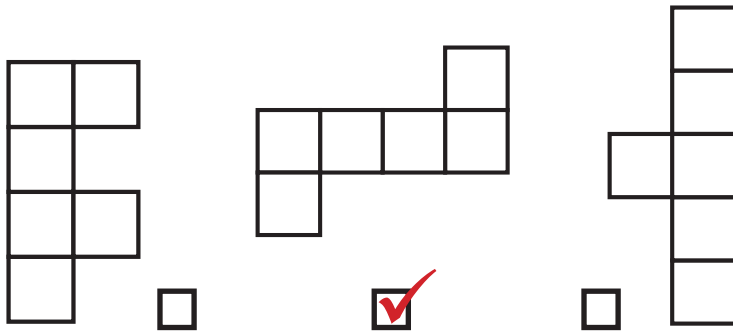
ANSWERS

SAFE 17

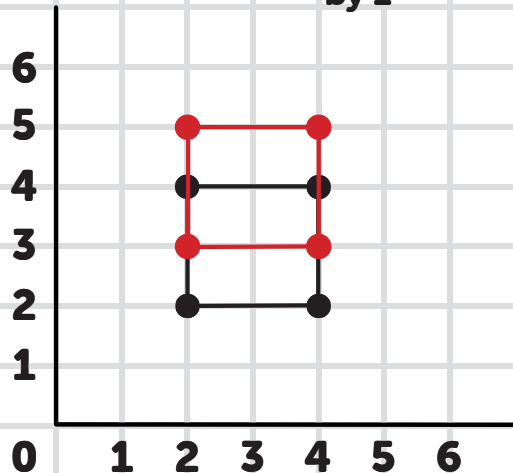
SET: 4

/10

1 Tick the true net of a cube?



2 Translate the shape by increasing the y coordinate by 1



3 Estimate angle 'a'
190°
(170° to 210°)



4 $\frac{2}{5}$ of 85 =
34

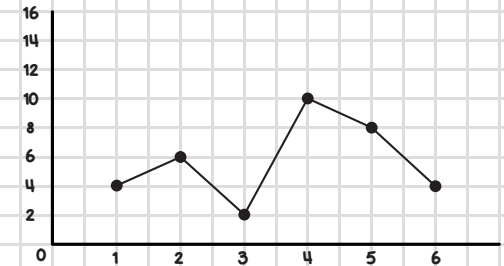
5 Which of these fractions is more than 1?

$\frac{15}{15}$ $\frac{18}{17}$ $\frac{15}{16}$

6 $\frac{3}{4} = \frac{15}{20}$

7 $\frac{11}{15} + \frac{1}{5} = \frac{14}{15}$

8 Alex recorded the number of goals she scored over 6 months.



How many goals did Alex score in months 4, 5 and 6?

22 goals

9 Complete the number pattern

431, 445, 459, **473**, **487**

10 $2x = 16$
 $x = 8$



MY LAST SCORE?!

HAVE I BEAT THAT?!



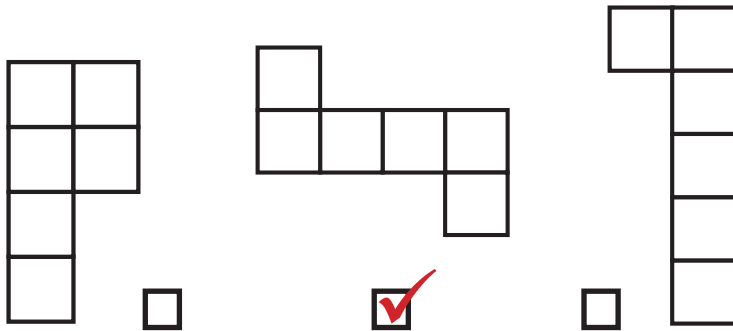
ANSWERS

SAFE 17

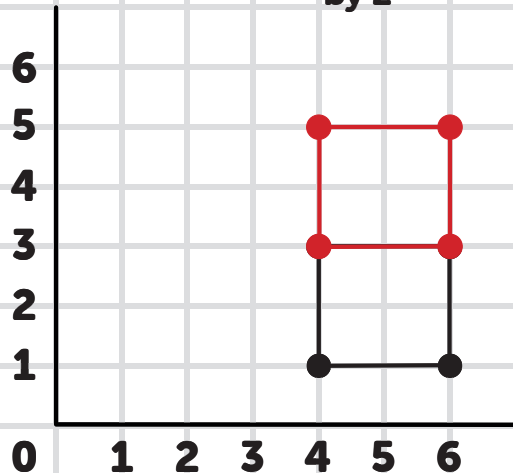
SET: 5

/10

1 Tick the true net of a cube?



2 Translate the shape by increasing the y coordinate by 2



3 Estimate angle 'a'

160°
(140° to 180°)



4 $\frac{5}{8}$ of 144 =

90

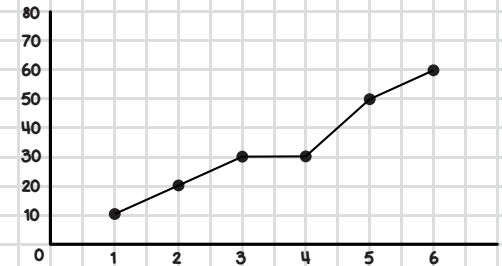
5 Which of these fractions is less than 1?

$\frac{12}{13}$ $\frac{14}{14}$ $\frac{16}{15}$

6 $\frac{4}{5} = \frac{12}{15}$

7 $\frac{1}{6} + \frac{3}{24} = \frac{7}{24}$

8 A class recorded the amount of rainfall over 6 weeks.



Which week had the least rainfall?

Week 1

9 Complete the number pattern

720, 709, 698, **687** , **676**

10 $7 \times = 49$
 $\times = 7$



MY LAST SCORE?!

HAVE I BEAT THAT?!



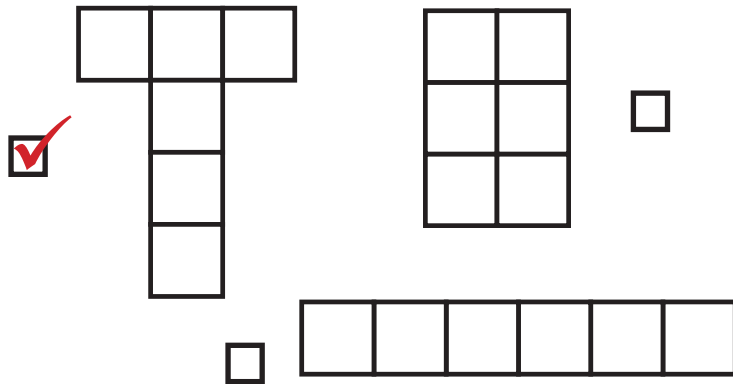
ANSWERS

SAFE 17

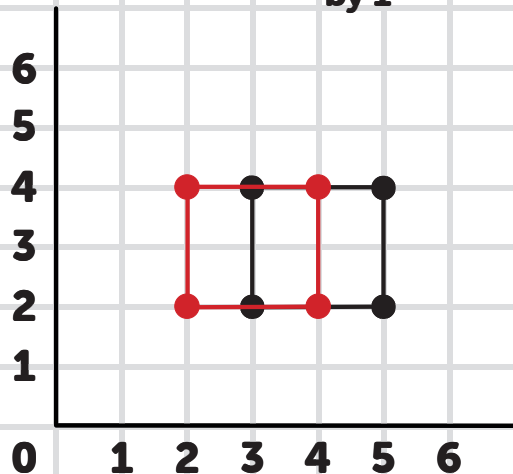
SET: 6

/10

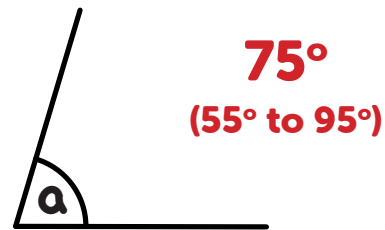
1 Tick the true net of a cube?



2 Translate the shape by decreasing the x coordinate by 1



3 Estimate angle 'a'



4 $\frac{6}{9}$ of 153 =

102

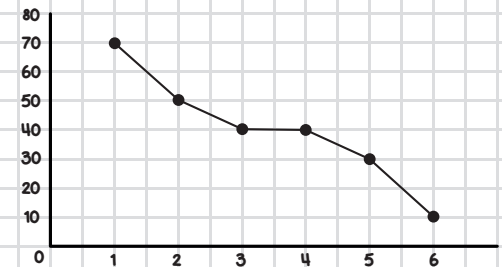
5 Which of these fractions is equal to 1?

$\frac{17}{17}$ $\frac{15}{16}$ $\frac{16}{15}$

6 $\frac{6}{10} = \frac{24}{40}$

7 $\frac{5}{9} + \frac{1}{18} = \frac{11}{18}$

8 A shop recorded their stock of chocolate bars over 6 weeks.



Which week did the shop have 50 chocolate bars remaining?

Week 2

9 Complete the number pattern

120, 140, 160, **180**, **200**

10 $6 \times = 36$
 $\times = 6$



MY LAST SCORE?!

HAVE I BEAT THAT?!



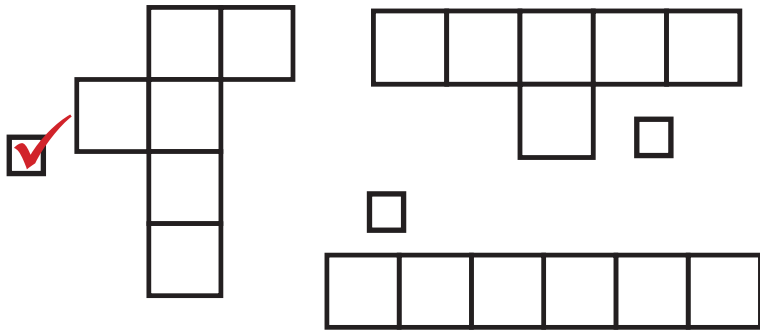
ANSWERS

SAFE 17

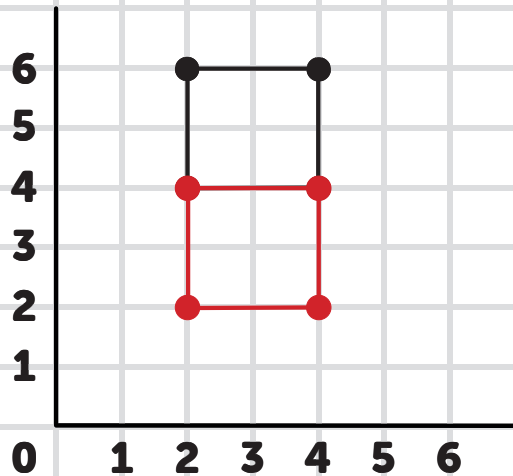
SET: 7

/10

1 Tick the true net of a cube?

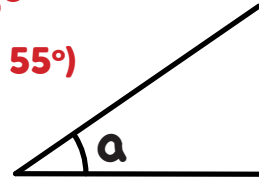


2 Translate the shape by decreasing the y coordinate by 2



3 Estimate angle 'a'

35°
(15° to 55°)



4 $\frac{5}{7}$ of 161 =

115

5 Which of these fractions is equal to 1?

$\frac{14}{15}$

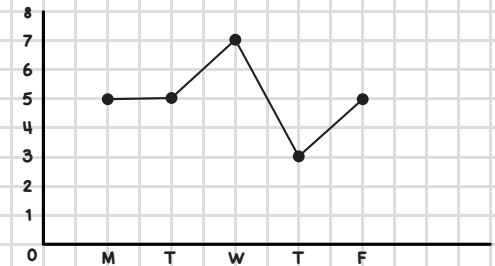
$\frac{15}{14}$

$\frac{14}{14}$

6 $\frac{1}{5} = \frac{5}{25}$

7 $\frac{7}{8} - \frac{3}{24} = \frac{18}{24}$

8 A class recorded how many pupils woke up late in a week.



How many pupils woke up late on Tuesday and Wednesday?

12

9 Complete the number pattern

255, 242, 229, **216**, **203**

10 $3x = 21$
 $x = 7$



MY LAST SCORE?!

HAVE I BEAT THAT?!



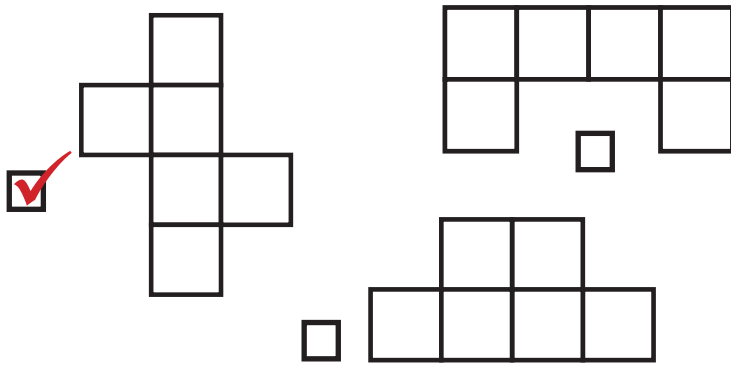
ANSWERS

SAFE 17

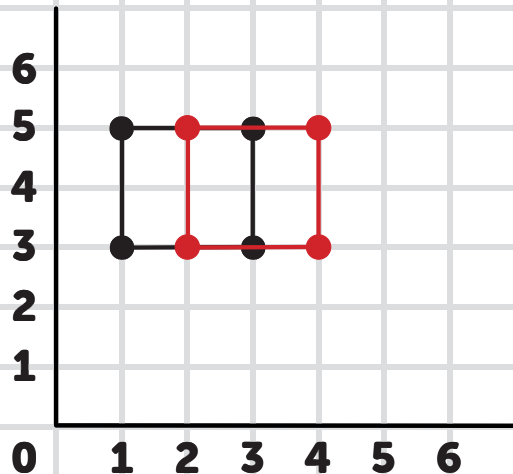
SET: 8

/10

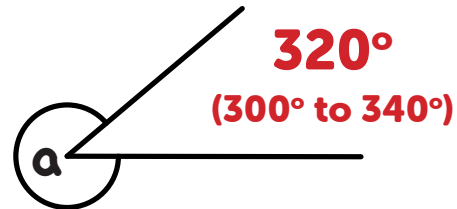
1 Tick the true net of a cube?



2 Translate the shape by increasing the x coordinate by 1



3 Estimate angle 'a'



4 $\frac{3}{5}$ of 115 =
69

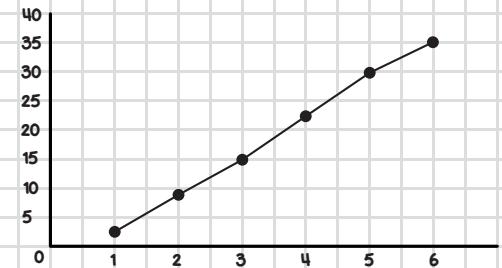
5 Which of these fractions is less than 1?

$\frac{13}{13}$ $\frac{15}{14}$ **$\frac{13}{14}$**

6 $\frac{2}{4} = \frac{6}{12}$

7 $\frac{1}{7} + \frac{1}{14} = \frac{3}{14}$

8 A football team recorded their goals tally each month for a season.



How many goals did the team score in months 5 and 6?

65

9 Complete the number pattern

301, 319, 337, **355** , **373**

10 $8 \times = 24$
 $\times = 3$



MY LAST SCORE?!

HAVE I BEAT THAT?!



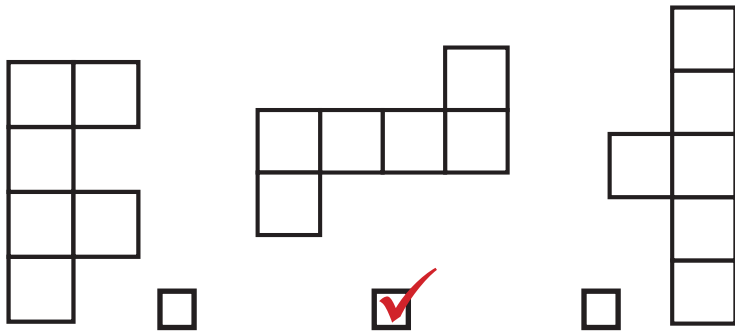
ANSWERS

SAFE 17

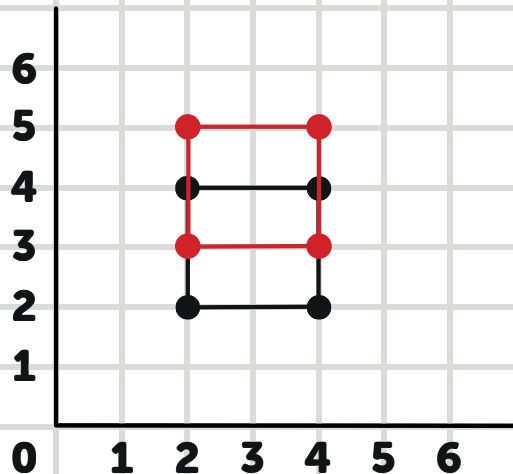
SET: 9

/10

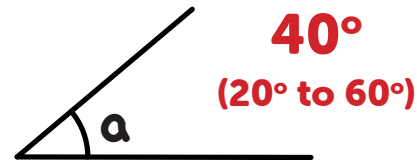
1 Tick the true net of a cube?



2 Translate the shape by increasing the y coordinate by 1



3 Estimate angle 'a'



4 $\frac{7}{8}$ of 136 =
119

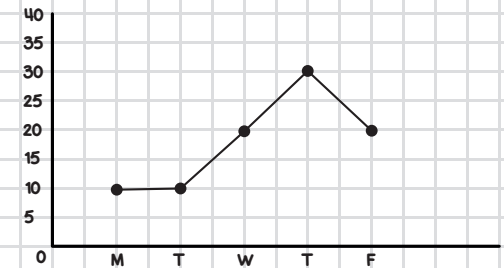
5 Which of these fractions is more than 1?

$\frac{17}{17}$ $\frac{16}{17}$ **$\frac{17}{16}$**

6 $\frac{1}{2} = \frac{4}{8}$

7 $\frac{2}{8} + \frac{11}{32} = \frac{19}{32}$

8 A class recorded the number of cars that went past school in a week.



Which day did the most cars go past?

Thursday

9 Complete the number pattern

145, 131, 117, **103**, **89**

10 $9 \times = 45$
 $\times = 5$



MY LAST SCORE?!

HAVE I BEAT THAT?!

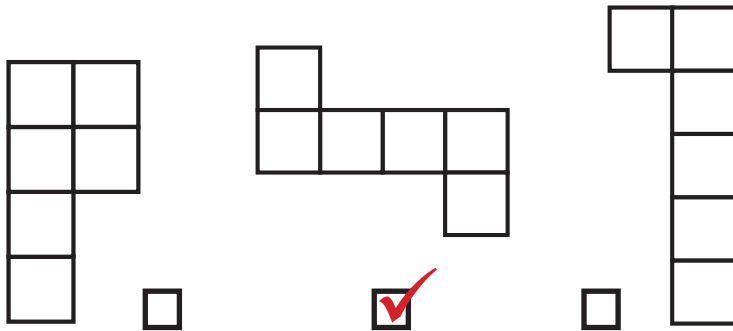
ANSWERS

SAFE 17

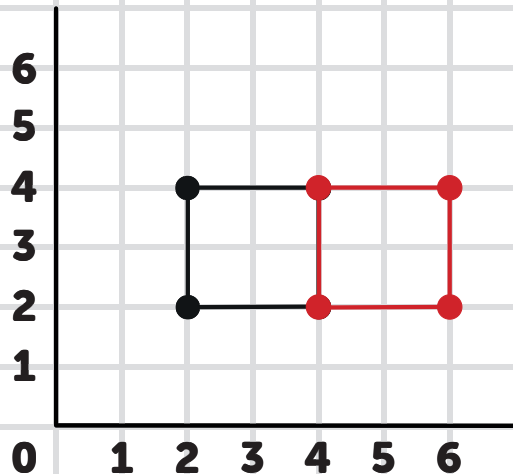
SET: 10

/10

1 Tick the true net of a cube?



2 Translate the shape by increasing the x coordinate by 2



3 Estimate angle 'a'



4 $\frac{8}{9}$ of 162 =
144

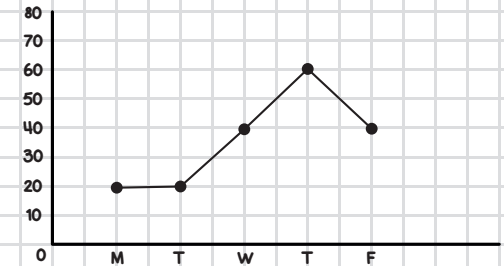
5 Which of these fractions is equal to 1?

$\frac{18}{19}$ $\frac{19}{18}$ $\frac{19}{19}$

6 $\frac{1}{4} = \frac{5}{20}$

7 $\frac{6}{8} - \frac{19}{32} = \frac{5}{32}$

8 A team recorded how many points they scored during practice in a week.



How many points did they score on Thursday and Friday?

100 points

9 Complete the number pattern

400, 417, 434, **451**, **468**

10 $5x = 40$
 $x = 8$



MY LAST SCORE?!

HAVE I BEAT THAT?!

