

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

NAME:

CLASS:

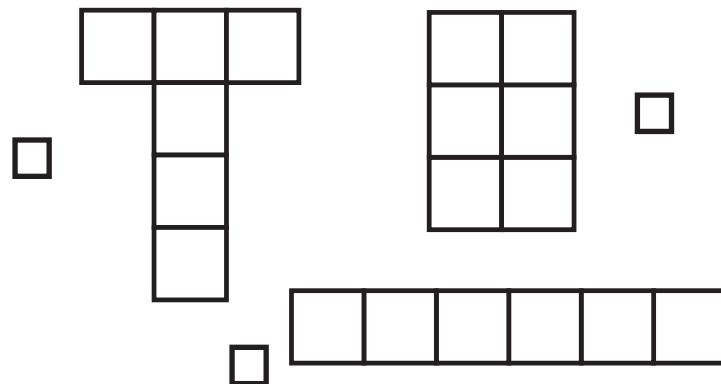
DATE:

SAFE 17

WK:1

/10

1 Which one is a true net of a cube?



3 Estimate angle 'a'



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

5 Which of these fractions is less than 1?

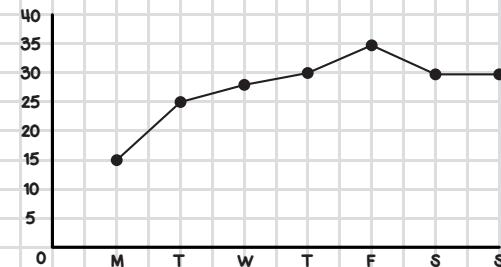
$$\frac{14}{13} \quad \frac{13}{14} \quad \frac{13}{13}$$

6

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

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

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?

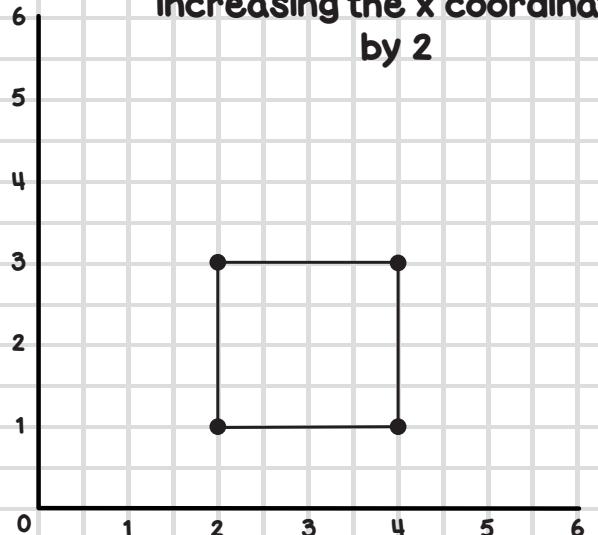
9 Complete the number pattern

150, 161, 172, ,

$$4 x = 24$$

x =

2 Translate the shape by increasing the x coordinate by 2



MY LAST SCORE?!

HAVE I BEAT THAT?!

NAME:

CLASS:

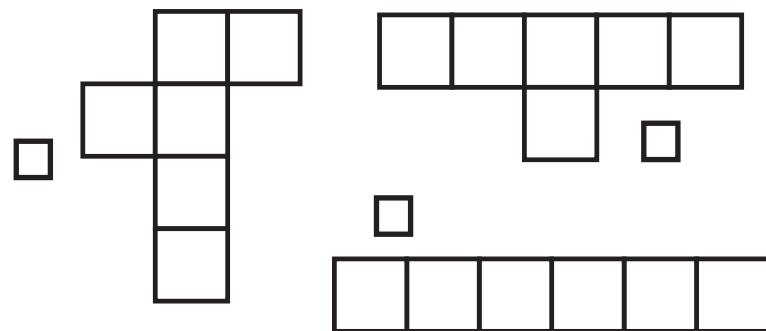
DATE:

SAFE 17

WK: 2

/10

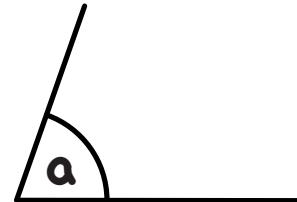
1 Tick the true net of a cube?



2 Translate the shape by increasing the y coordinate by 1



3 Estimate angle 'a'



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

5 Which of these fractions is more than 1?

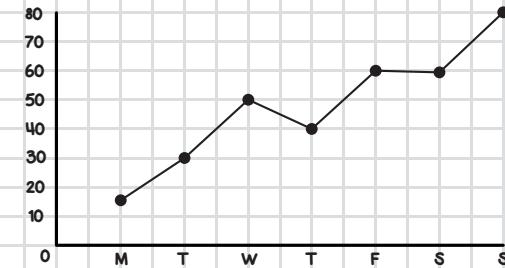
$$\frac{15}{14} \quad \frac{14}{14} \quad \frac{13}{13}$$

6

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

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

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, ,

$$5 x = 35$$

$$x =$$



MY LAST SCORE?!

HAVE I BEAT THAT?!

NAME:

CLASS:

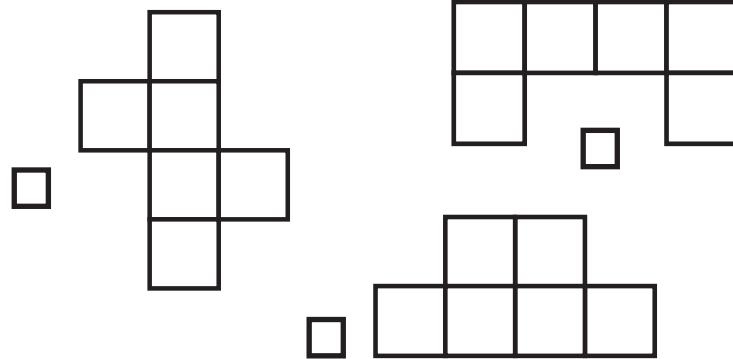
DATE:

SAFE 17

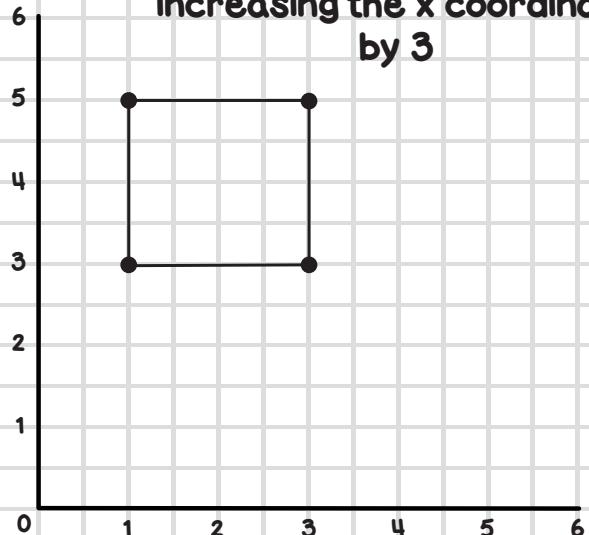
WK: 3

/10

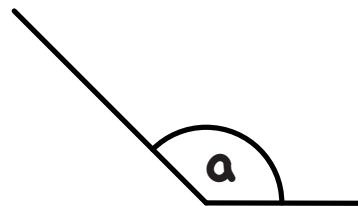
1 Tick the true net of a cube?



2 Translate the shape by increasing the x coordinate by 3



3 Estimate angle 'a'



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

5 Which of these fractions is equal to 1?

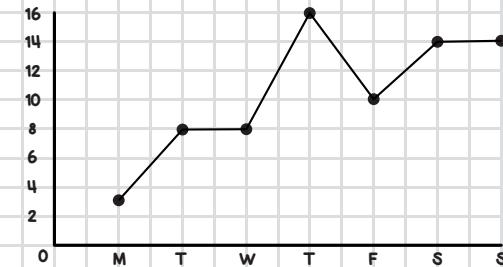
$$\frac{16}{17} \quad \frac{16}{16} \quad \frac{15}{16}$$

6

$$\frac{3}{10} = \frac{\underline{\hspace{2cm}}}{30}$$

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

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, ,

$$4 x = 28$$

$$x =$$



MY LAST SCORE?!

HAVE I BEAT THAT?!

NAME:

CLASS:

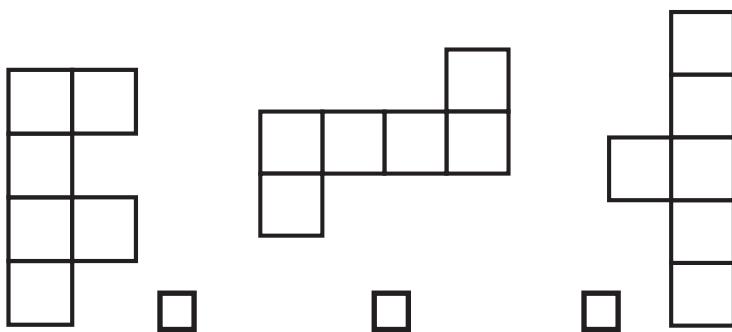
DATE:

SAFE 17

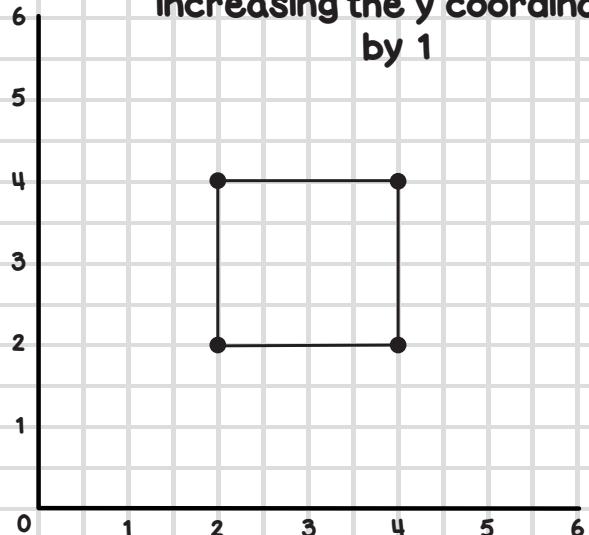
WK:4

/10

1 Tick the true net of a cube?



2 Translate the shape by increasing the y coordinate by 1



3 Estimate angle 'a'



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

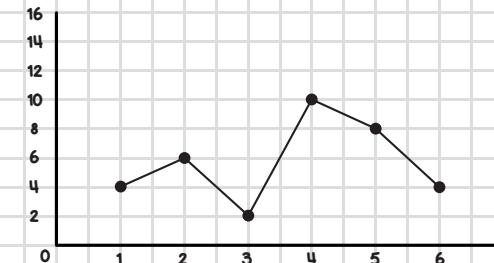
5 Which of these fractions is more than 1?

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

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

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 from in months 4, 5 and 6?

9 Complete the number pattern

431, 445, 459, ,

10 $2 x = 16$
x =



MY LAST SCORE?!

HAVE I BEAT THAT?!

NAME:

CLASS:

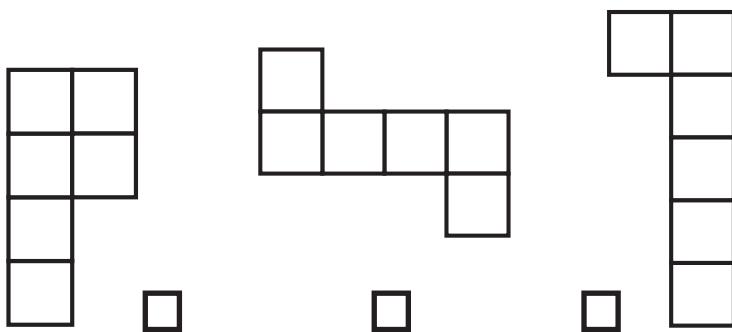
DATE:

SAFE 17

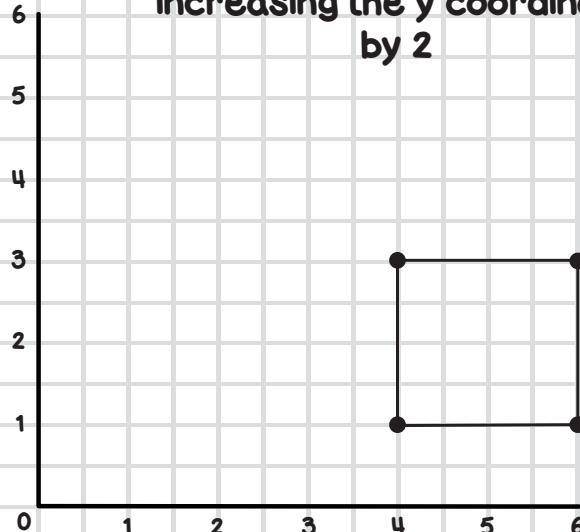
WK:5

/10

1 Tick the true net of a cube?



2 Translate the shape by increasing the y coordinate by 2



3 Estimate angle 'a'



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

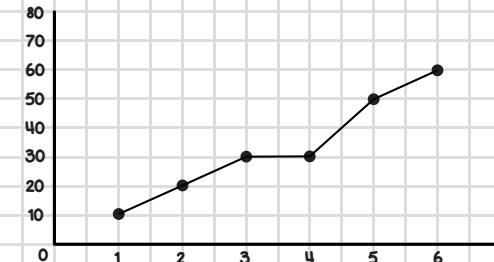
5 Which of these fractions is less than 1?

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

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

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?!

NAME:

CLASS:

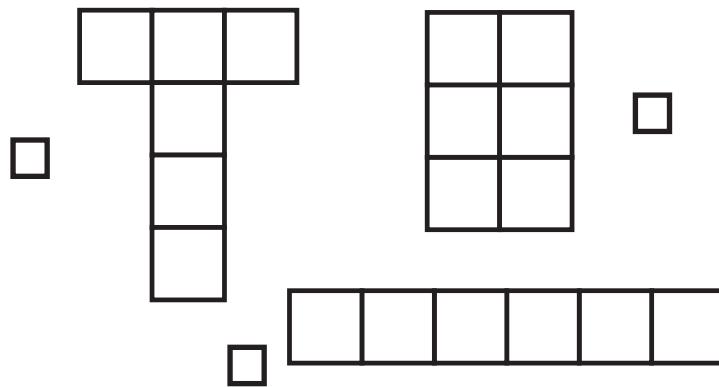
DATE:

SAFE 17

WK: 6

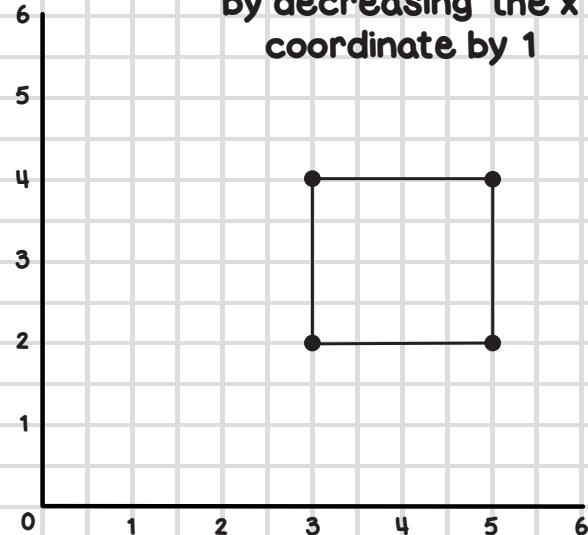
/10

1 Tick the true net of a cube?

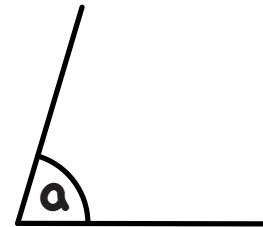


2

Translate the shape by decreasing the x coordinate by 1



3 Estimate angle 'a'



4

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

5

Which of these fractions is equal to 1?

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

6

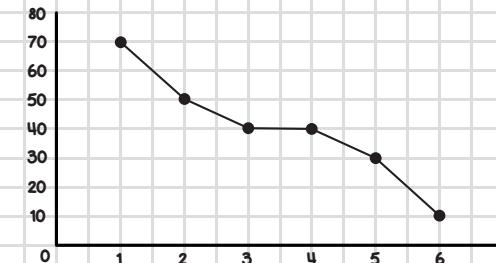
$$\frac{6}{10} = \frac{\underline{\hspace{2cm}}}{40}$$

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 40 chocolate bars remaining?

9

Complete the number pattern

120, 140, 160, ,

10

$$6 x = 36$$

$$x =$$



MY LAST SCORE?!

HAVE I BEAT THAT?!

NAME:

CLASS:

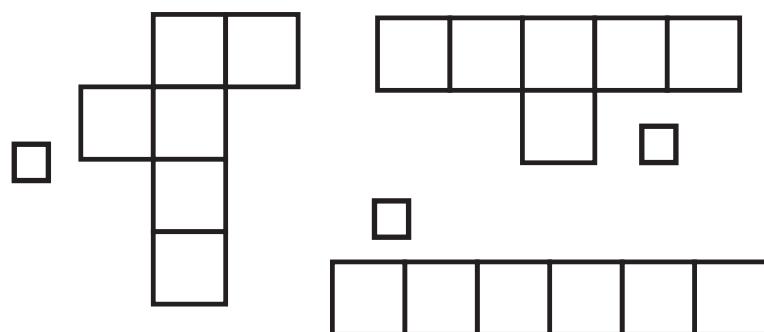
DATE:

SAFE 17

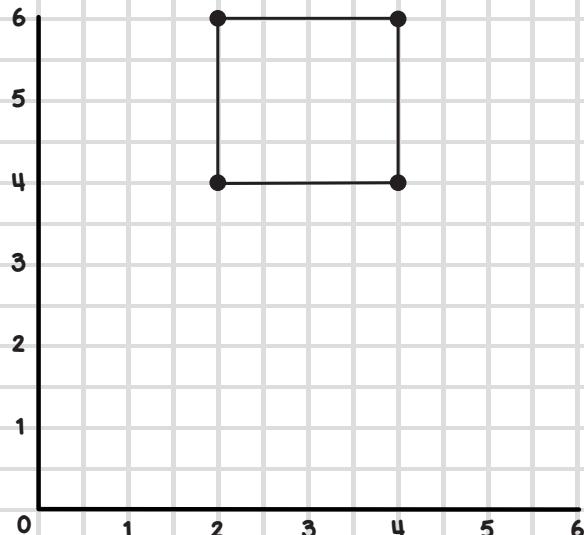
WK: 7

/10

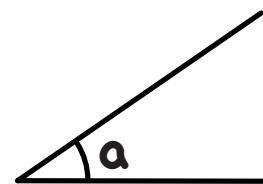
1 Tick the true net of a cube?



2 Translate the shape by decreasing the y coordinate by 2



3 Estimate angle 'a'



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

5 Which of these fractions is equal to 1?

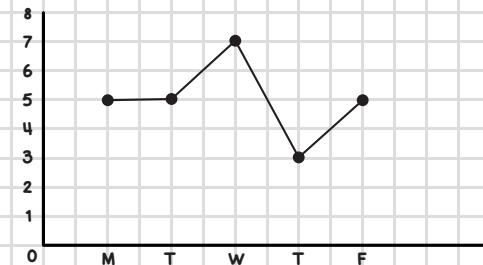
$$\frac{14}{15} \quad \frac{15}{14} \quad \frac{14}{14}$$

6

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

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

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, ,

$$3x = 21$$

$$x =$$



MY LAST SCORE?!

HAVE I BEAT THAT?!

NAME:

CLASS:

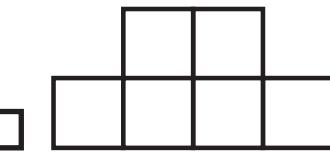
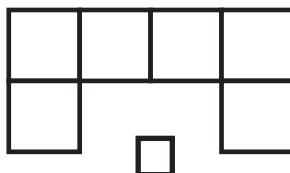
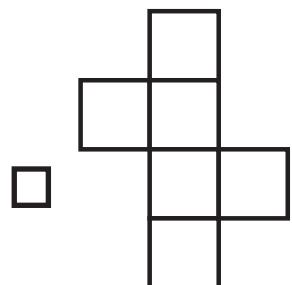
DATE:

SAFE 17

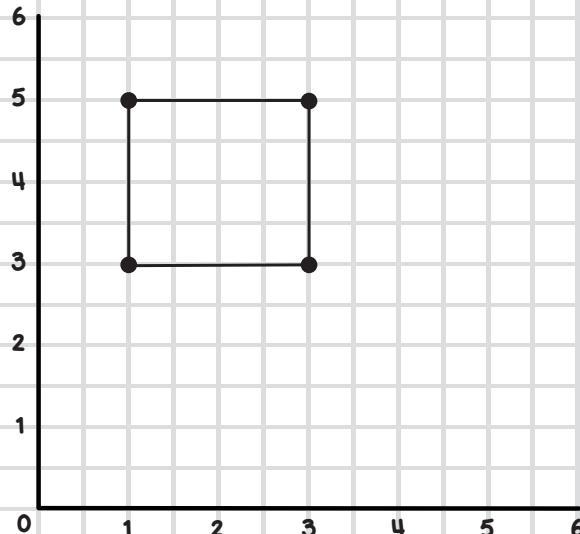
WK:8

/10

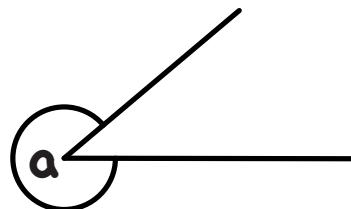
1 Tick the true net of a cube?



2 Translate the shape by increasing the x coordinate by 1



3 Estimate angle 'a'



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

5 Which of these fractions is less than 1?

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

6

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

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

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, ,

$$8 \times = 24$$

$$=$$



MY LAST SCORE?!

HAVE I BEAT THAT?!

NAME:

CLASS:

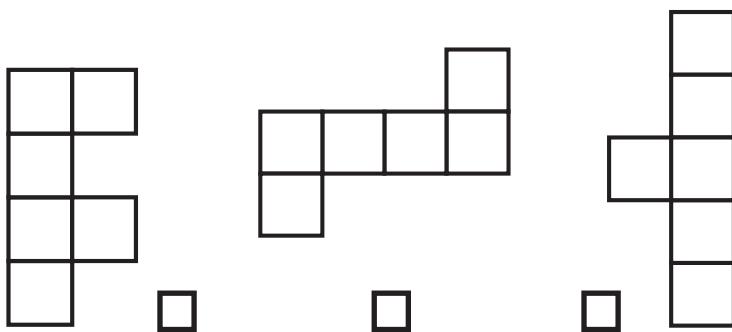
DATE:

SAFE 17

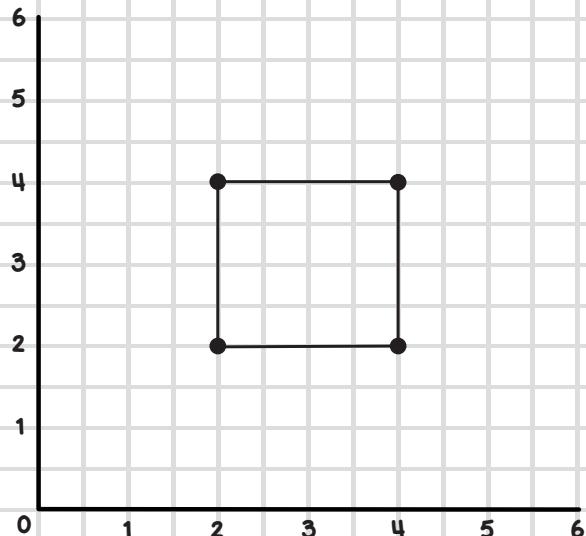
WK:9

/10

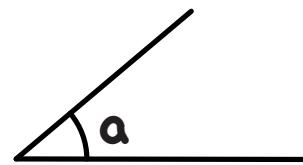
1 Tick the true net of a cube?



2 Translate the shape by increasing the y coordinate by 1



3 Estimate angle 'a'



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

5 Which of these fractions is more than 1?

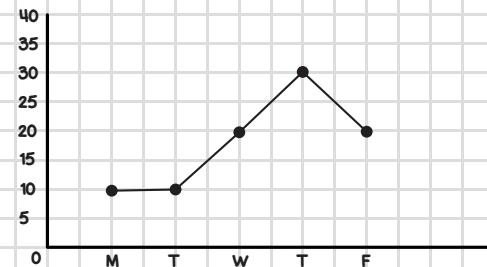
$$\frac{17}{17} \quad \frac{16}{17} \quad \frac{17}{16}$$

6

$$\frac{1}{2} = \frac{\underline{\hspace{2cm}}}{8}$$

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

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, ,

$$9 \times = 45$$

$$=$$



MY LAST SCORE?!

HAVE I BEAT THAT?!

NAME:

CLASS:

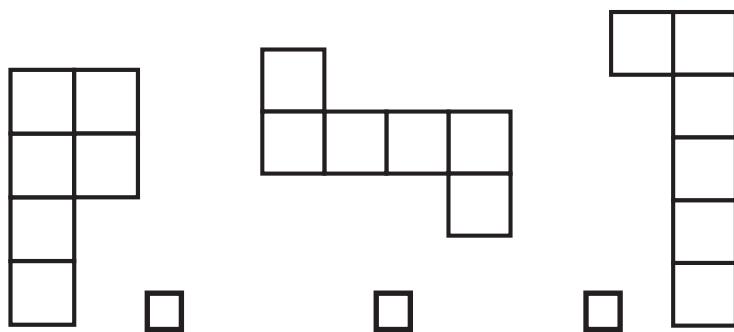
DATE:

SAFE 17

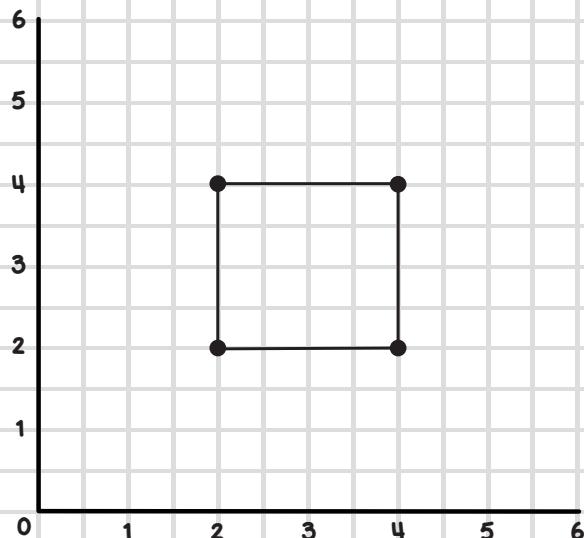
WK: 10

/10

1 Tick the true net of a cube?



2 Translate the shape by increasing the x coordinate by 2



3 Estimate angle 'a'



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

5 Which of these fractions is equal to 1?

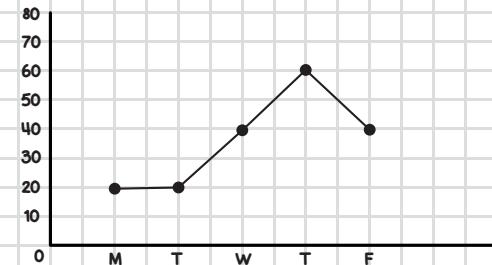
$$\frac{18}{19} \quad \frac{19}{18} \quad \frac{19}{19}$$

6

$$\frac{1}{4} = \frac{\square}{20}$$

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

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, ,

$$5x = 40$$

$$x =$$



MY LAST SCORE?!

HAVE I BEAT THAT?!

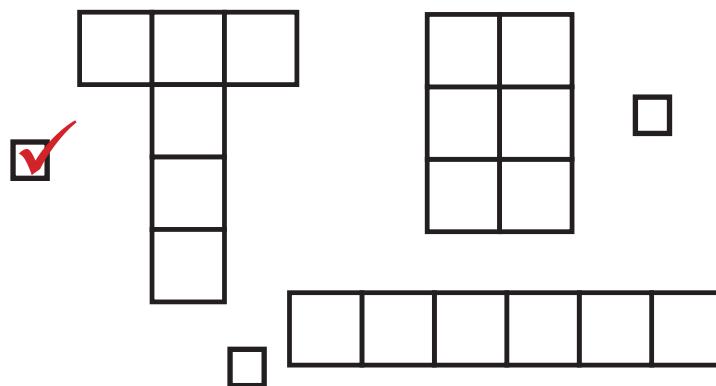
ANSWERS

SAFE 17

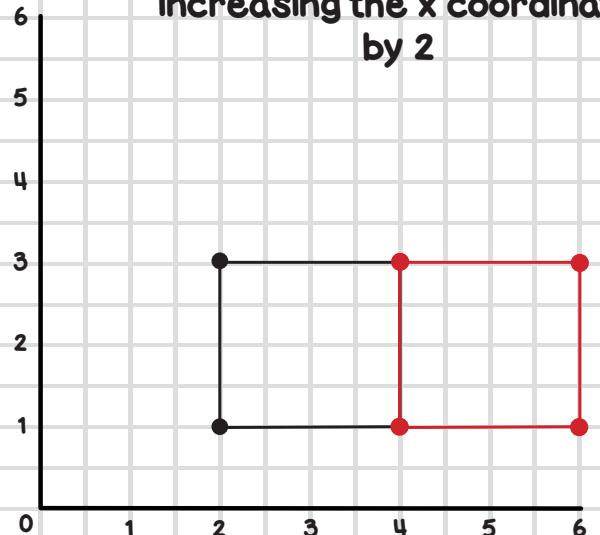
WK:1

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

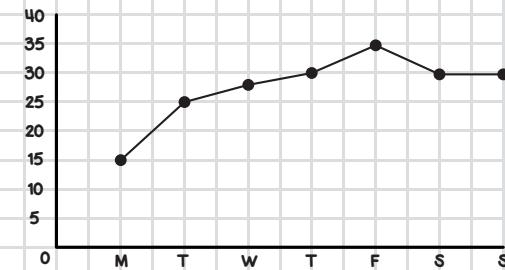
5 Which of these fractions is less than 1?

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

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 $4x = 24$
 $x = 6$



MY LAST SCORE?!

HAVE I BEAT THAT?!

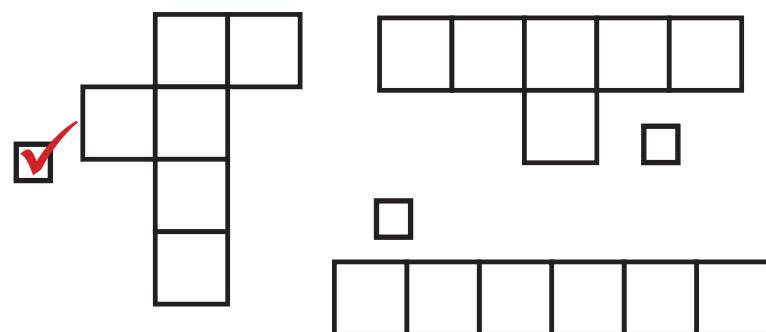
ANSWERS

SAFE 17

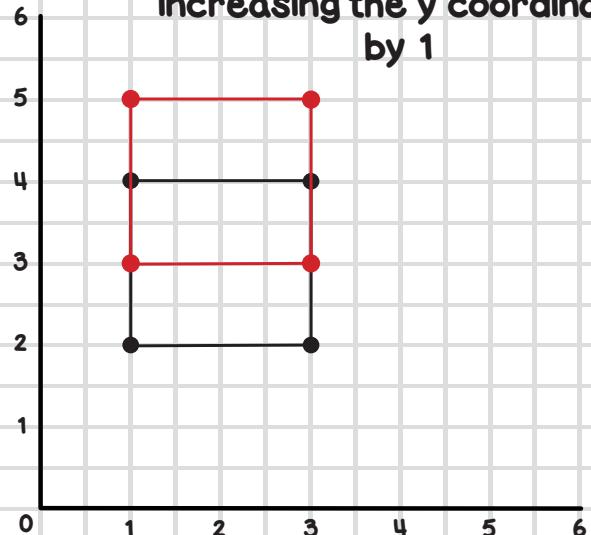
WK: 2

/10

1 Tick the true net of a cube?



2 Translate the shape by increasing the y coordinate by 1



3 Estimate angle 'a'



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

5 Which of these fractions is more than 1?

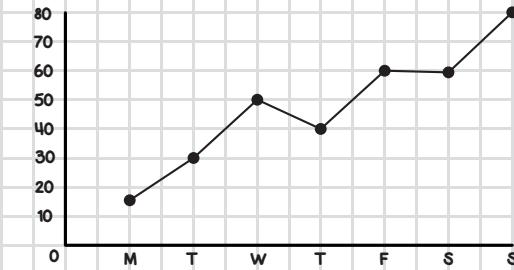
$$\frac{15}{14} \quad \frac{14}{14} \quad \frac{13}{13}$$

6

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

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

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

$$5 x = 35$$

$$x = 7$$



MY LAST SCORE?!

HAVE I BEAT THAT?!

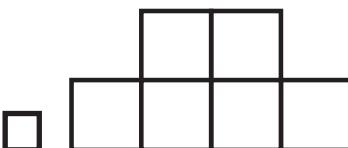
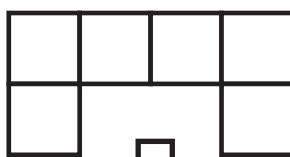
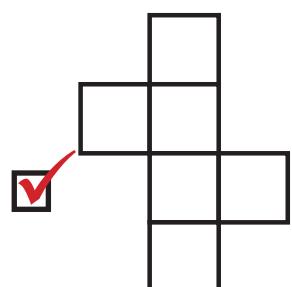
ANSWERS

SAFE 17

WK:3

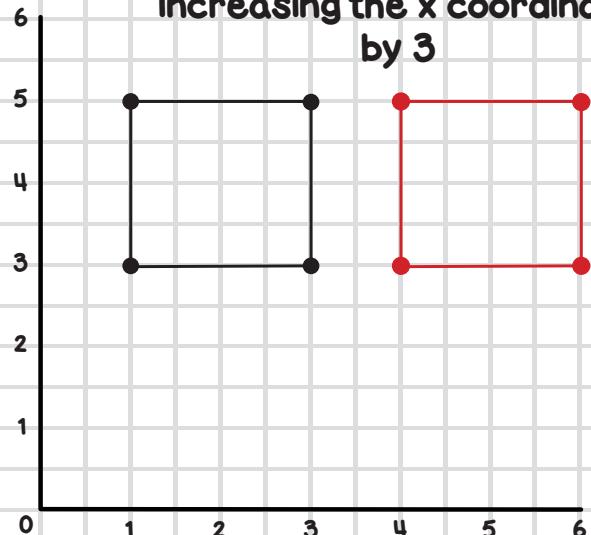
10

1 Tick the true net of a cube?



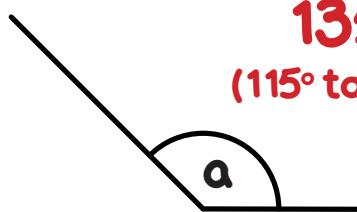
2

Translate the shape by increasing the x coordinate by 3



3 Estimate angle 'a'

135°
(115° to 155°)



4

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

5

Which of these fractions is equal to 1?

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

6

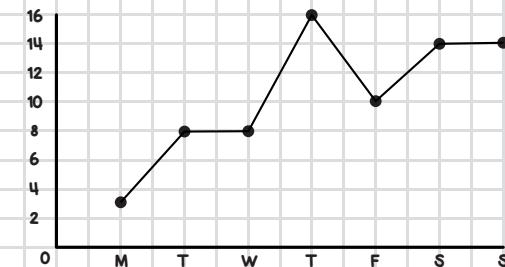
$$\frac{3}{10} = \frac{9}{30}$$

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

$$4 x = 28$$

$$x = 7$$



MY LAST SCORE?!

HAVE I BEAT THAT?!

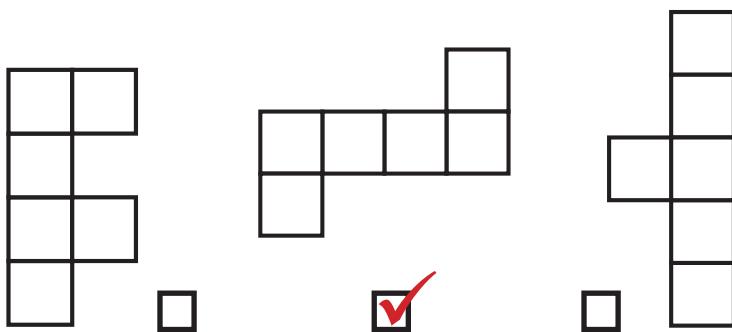
ANSWERS

SAFE 17

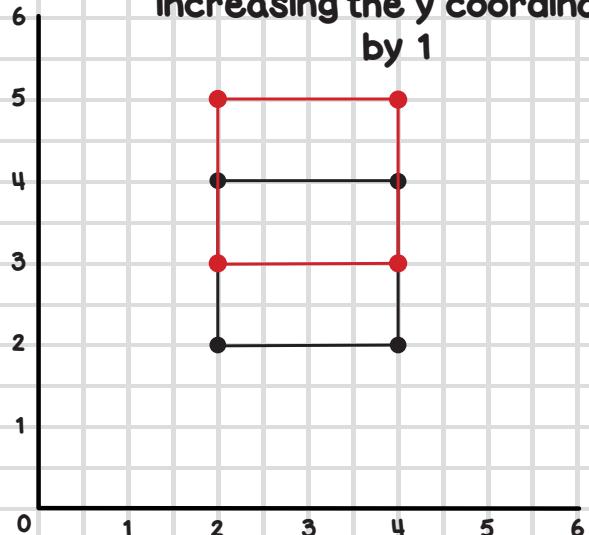
WK:4

/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°)

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

5 Which of these fractions is more than 1?

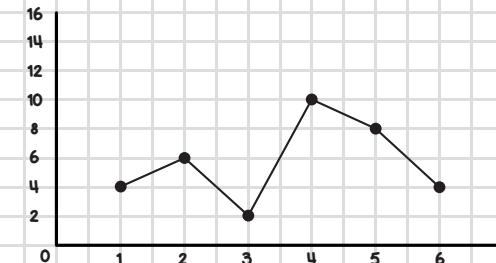
$$\frac{15}{15} \quad \frac{18}{17} \quad \frac{15}{16}$$

6

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

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

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



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

22 goals

9 Complete the number pattern

431, 445, 459, 473, 487

10

$$2 x = 16$$

$$x = 8$$



MY LAST SCORE?!

HAVE I BEAT THAT?!

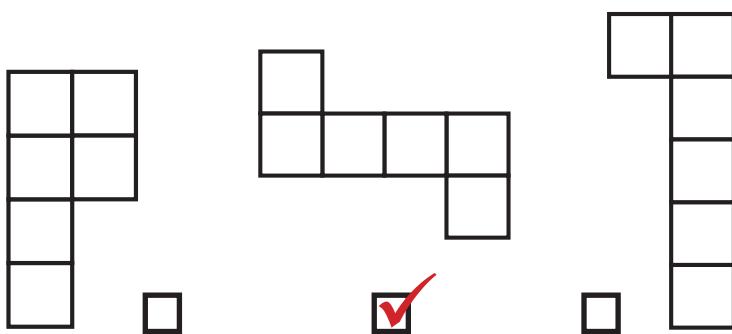
ANSWERS

SAFE 17

WK:5

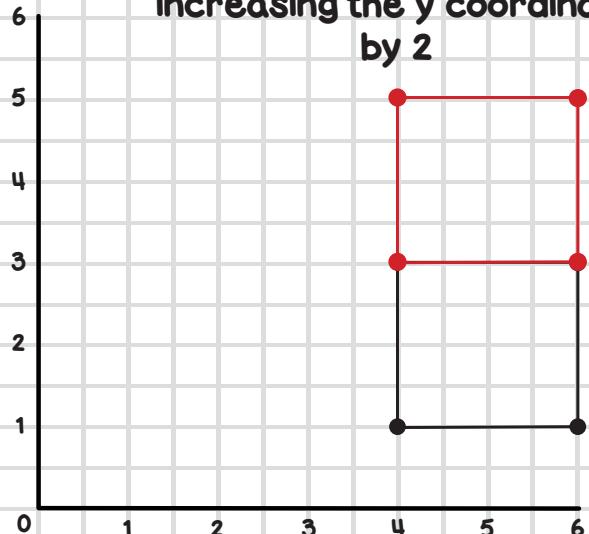
/10

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

$$\frac{5}{8} \text{ of } 144 = 90$$

5

Which of these fractions is less than 1?

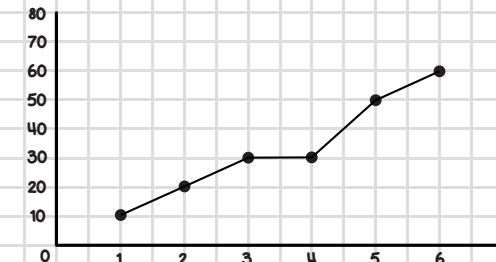
$$\frac{12}{13} \quad \frac{14}{14} \quad \frac{16}{15}$$

6

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

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?!

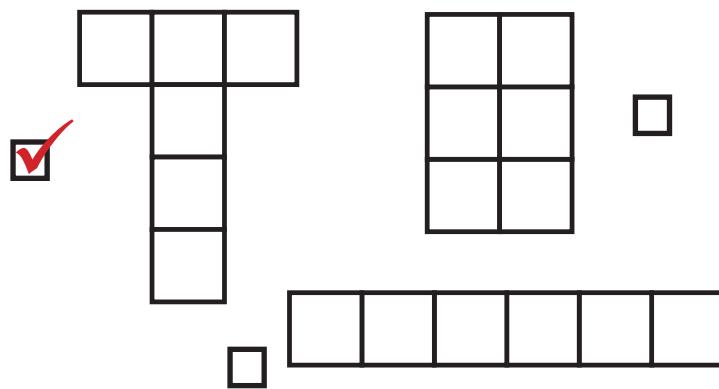
ANSWERS

SAFE 17

WK: 6

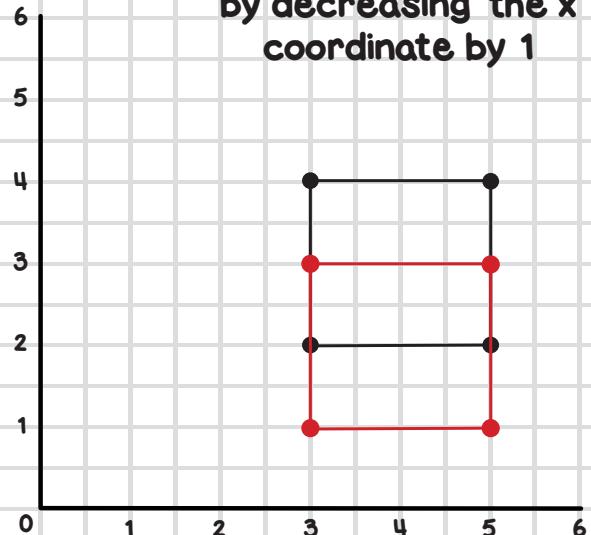
10

1 Tick the true net of a cube?



2

Translate the shape by decreasing the x coordinate by 1



3 Estimate angle 'a'



4

$$\frac{6}{9} \text{ of } 153 = 102$$

5

Which of these fractions is equal to 1?

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

6

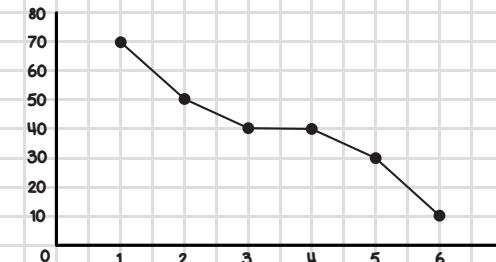
$$\frac{6}{10} = \frac{24}{40}$$

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 40 chocolate bars remaining?

Week 3

9

Complete the number pattern

120, 140, 160, 180, 200

10

$$6 x = 36$$

$$x = 6$$



MY LAST SCORE?!

HAVE I BEAT THAT?!

ANSWERS

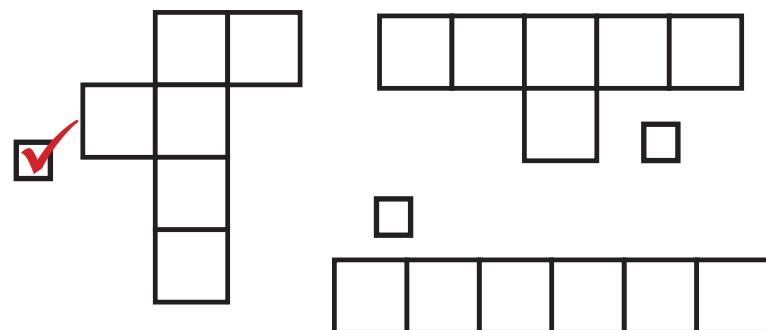
SAFE 17

WK: 7

/10

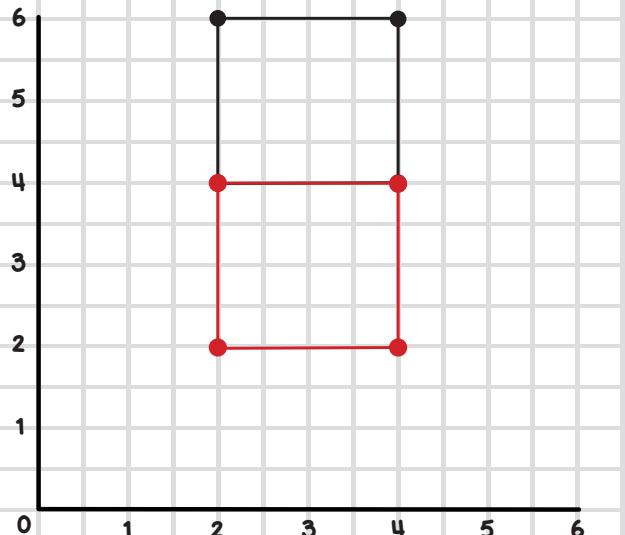
1

Tick the true net of a cube?



2

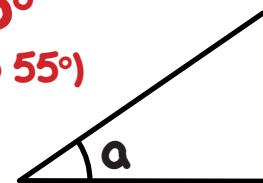
Translate the shape by decreasing the y coordinate by 2



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

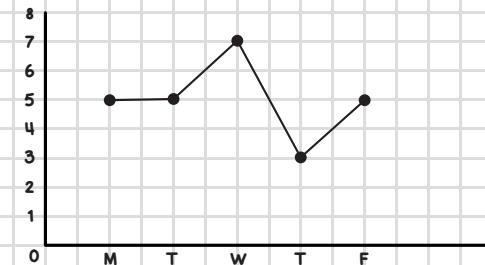
$\frac{1}{5} = \frac{5}{25}$

7

$$\frac{7}{8} - \frac{3}{24} = \frac{20}{24}$$

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?!

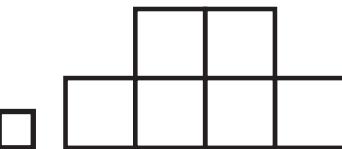
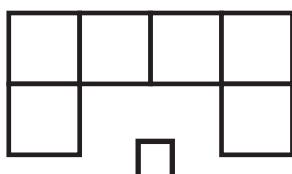
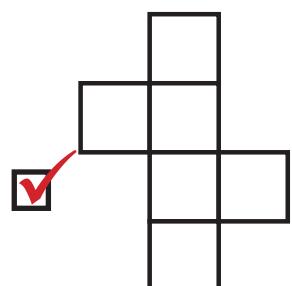
ANSWERS

SAFE 17

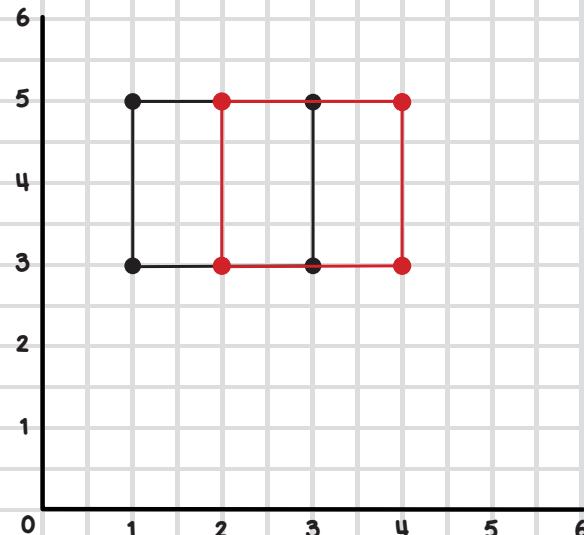
WK:8

/10

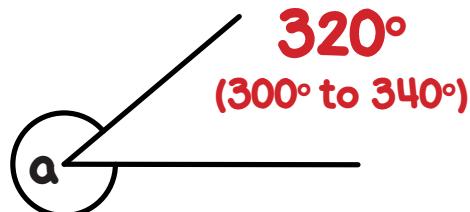
1 Tick the true net of a cube?



2 Translate the shape by increasing the x coordinate by 1



3 Estimate angle 'a'



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

5 Which of these fractions is less than 1?

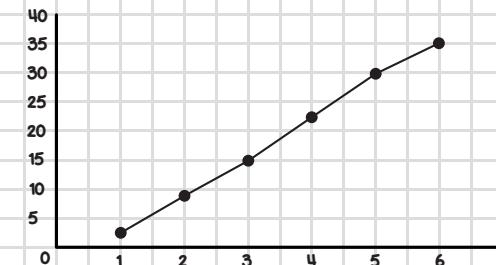
$$\frac{13}{13} \quad \frac{15}{14} \quad \frac{13}{14}$$

6

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

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

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

$$8 \times = 24$$

$x = 3$



MY LAST SCORE?!

HAVE I BEAT THAT?!

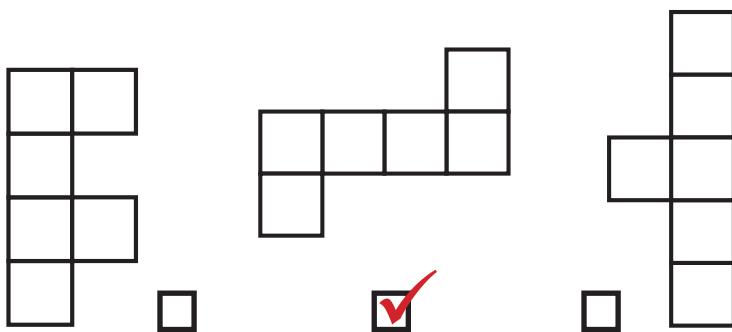
ANSWERS

SAFE 17

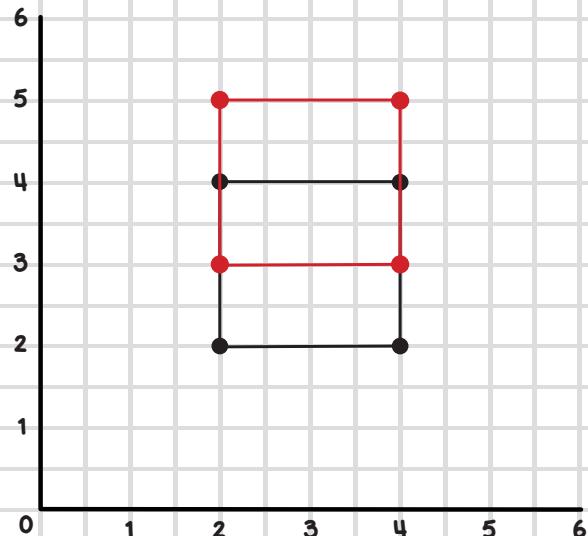
WK:9

10

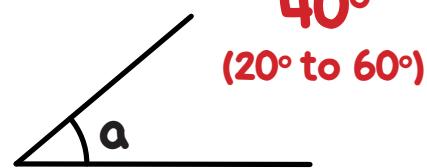
1 Tick the true net of a cube?



2 Translate the shape by increasing the y coordinate by 1



3 Estimate angle 'a'



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

119

5 Which of these fractions is more than 1?

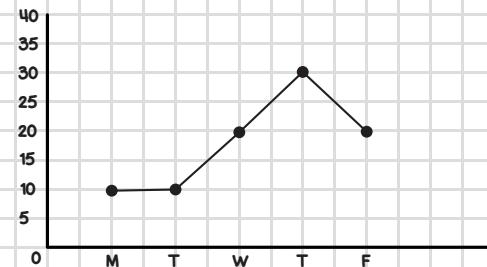
$\frac{17}{17}$ $\frac{16}{17}$ $\frac{17}{16}$

6

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

$\frac{2}{8} + \frac{11}{32} = \frac{17}{32}$

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?!

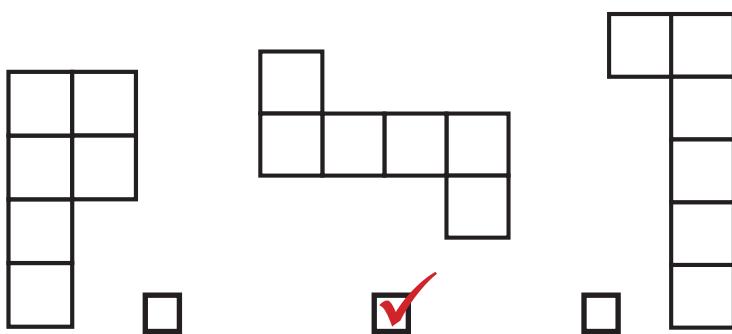
ANSWERS

SAFE 17

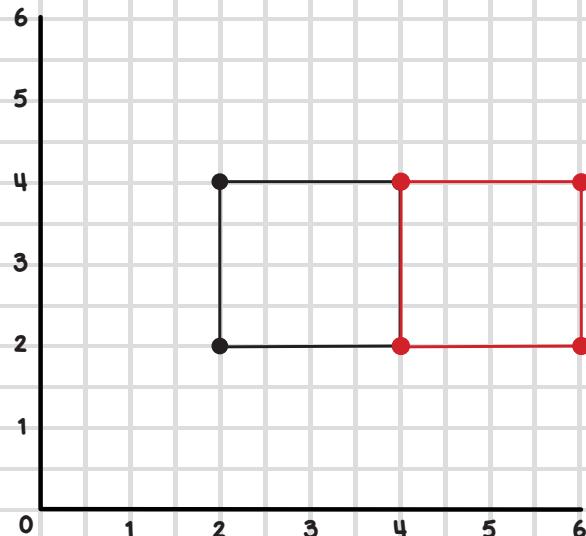
WK:10

10

1 Tick the true net of a cube?



2 Translate the shape by increasing the x coordinate by 2



3 Estimate angle 'a'



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

5 Which of these fractions is equal to 1?

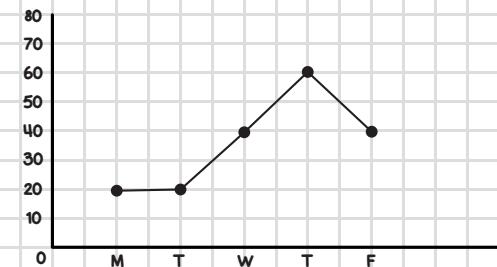
$$\frac{18}{19} \quad \frac{19}{18} \quad \boxed{\frac{19}{19}}$$

6

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

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

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?!