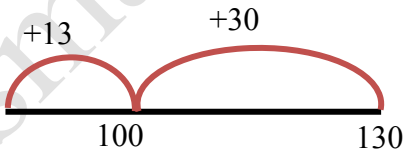
FAS-PASS
Maths

NATIONAL TEST 2014
Mathematics – Standard III

No.	TEST ITEMS	WORKING COLUMN	*Do Not Write Here*
1.	How many **tens** are there in 170? **Answer: 7 tens**	<table><tr><th>Hundreds</th><th>Tens</th><th>Ones</th></tr><tr><td>1</td><td>7</td><td>0</td></tr></table> 7 tens	
2.	What is the missing number in the sentence below? $87 + \square = 130$ **Answer: 43**	We count up from 87 to 130. 13 + 30 = 43 	
3.	Round 2 344 to the nearest **hundred**. **Answer: 2300**	<table><tr><th>Th</th><th>Hundreds</th><th>Tens</th><th>Ones</th></tr><tr><td>2</td><td>3</td><td>4</td><td>4</td></tr></table> Our decision to round up or down depends on the value of the digit to the immediate right of the hundreds digit which is the tens digit. If this digit is 5 or more, we round up and if it is less than 5 we round down. Since 4 is less than 5, we round down, so 2344 is rounded to 2300 when expressed to the nearest hundred.	

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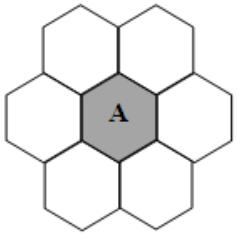
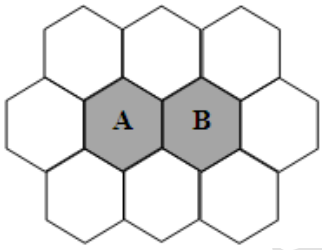
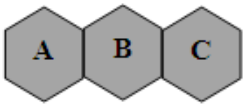
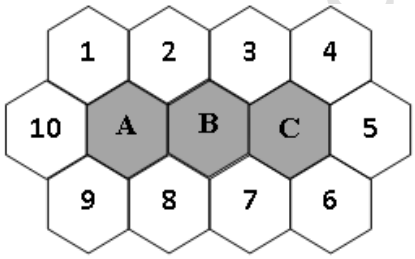
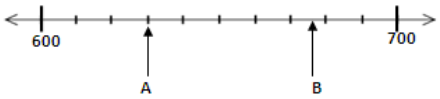
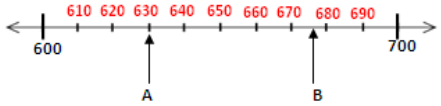
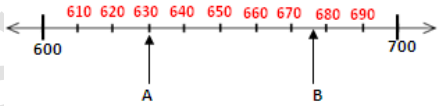
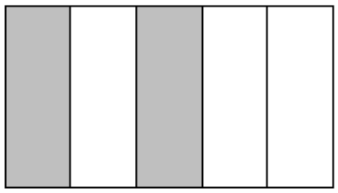
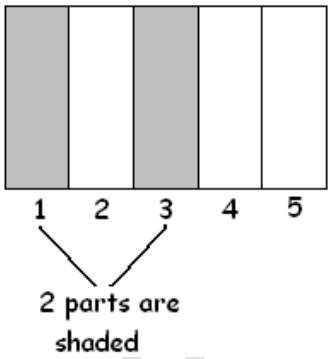
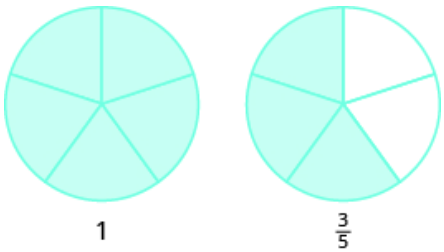
4.	Circle the numbers that have a sum of 789. (a) 700, 89, 9 (b) 700, 800, 9 (c) 70, 80, 9 (d) 700, 79, 10 **Answer: 700, 79, 10**	We check all options to determine which one has a sum of 789. (a) 700 + 89 + 9 = 789 + 9 = 798 Clearly this not equal to 789. (b) 700 + 800 + 9 = 1500 + 9 = 1509 Clearly this is not equal to 789 (c) 70 + 80 + 9 = 150 + 9 = 159 Clearly this is not equal to 789 (d) 700 + 79 + 10 =779 + 10 = 789 We now conclude that (d) is the correct answer	

No.	TEST ITEMS	WORKING COLUMN	*Do Not Write Here*
5.	There are 6 honeycomb cells around cell A.  There are 8 honeycomb cells around cells A and B together.  How many honeycomb cells would there be around cells A, B and C?  **Answer: 10 honeycomb cells**	Cell A has 6 cells around it. Cell B has 6 + 2 = 8 cells around it. So Cell C should have 8 + 2 = 10 cells around it. We verify by drawing  There are 10 honeycomb cells around the cells A, B and C.	

No.	TEST ITEMS	WORKING COLUMN	*Do Not Write Here*
6.	Fill in the blanks.  	a. From 600 to 700 there are nine equally spaced marks. These are at intervals of 10.  The exact value of mark A is 630.	
a.	The exact value of **A** is --- Answer **630**.	b.  The mark B appears to be a little more than half way between 670 and 680. The value of B is a little over 675 and could be about 676, 677 or 678. We may choose any of these.	
b.	The approximate value of **B** is ---- Answer **677**.		

No.	TEST ITEMS	WORKING COLUMN	*Do Not Write Here*
7.	The shape below represents ONE whole. It is divided into equal parts. 	a. 	
a.	What fraction of the shape is shaded? **Answer:** $\frac{2}{5}$	There are 5 equal parts. The fraction that is shaded $= \frac{\text{No. of shaded parts}}{\text{Total no. of parts}}$ $= \frac{2}{5}$	
b.	Write $\frac{8}{5}$ as a mixed number. **Answer:** $1\frac{3}{5}$	a. Writing $\frac{8}{5}$ as a mixed number. 8 fifths = 5 fifths + 3 fifths = 1 whole + 3 fifths  $\frac{8}{5} = \frac{5}{5} + \frac{3}{5} = 1\frac{3}{5}$	

No.	TEST ITEMS	WORKING COLUMN	*Do Not Write Here*
8.	Akeem, Sean and Mary are playing a board game. Akeem has 126 points.		
a.	Mary has 100 points less than Akeem. How many points does Mary have? **Answer: 26**	a. Akeem has 126 points. Mary has 100 points less than Akeem. Therefore, Mary has 126 -100 points. $\begin{array}{r} 126 \\ -100 \\ \hline 26 \end{array}$	
b.	Sean has 3 times as many points as Akeem. How many points does Sean have? **Answer: 378 points**	b. Sean has 3 times as many points as Akeem. Therefore, Sean has 126×3 or 126 + 126 + 126 points. $\begin{array}{r\|ccc} & H & T & O \\ & & 1 & \\ & 1 & 2 & 6 \\ & 1 & 2 & 6 \\ + & 1 & 2 & 6 \\ \hline & 3 & 7 & 8 \end{array}$ $\quad$ $\begin{array}{r\|ccc} & H & T & O \\ & & 1 & \\ & 1 & 2 & 6 \\ \times & & & 3 \\ \hline & 3 & 7 & 8 \end{array}$	

No.	TEST ITEMS	WORKING COLUMN	*Do Not Write Here*
9.	Deo planted 192 corn plants in rows. Each row had 8 plants. How many rows of corn did he plant? **Answer: 24 rows**	Number of corn plants = 192 Number of plants in a row = 8 Therefore, the number of rows will be the number of groups of 8 in 192. This will be 192 ÷ 8 = 24 H T O 8 | 1 9 $^{3}2$ 2 4 = 24 rows	

No.	TEST ITEMS	WORKING COLUMN	*Do Not Write Here*
10.	Keith had a bag of oranges to sell. On Monday he sold $\frac{1}{4}$ of his oranges. On Tuesday he sold $\frac{3}{8}$ of his oranges.	a. On Monday Keith sells $\frac{1}{4}$ of his oranges. $\frac{1}{4} \overset{\times 2}{=} \frac{2}{8}$ On Tuesday Keith sells $\frac{3}{8}$ of his oranges.	
a.	On which day did he sell more oranges? **Answer: Tuesday**		
b.	What fraction of his oranges was sold on Monday and Tuesday? **Answer:** $\frac{5}{8}$	b. Fraction of oranges sold on Monday = $\frac{2}{8}$ Fraction of oranges sold on Tuesday = $\frac{3}{8}$ Fraction sold on Monday and Tuesday $= \frac{2}{8} + \frac{3}{8} = \frac{5}{8}$	

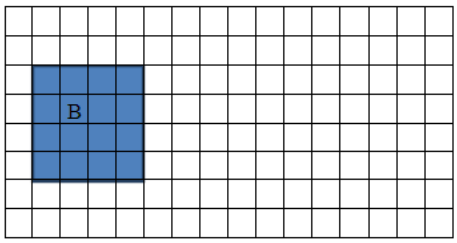
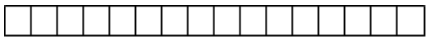
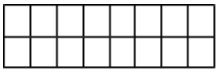
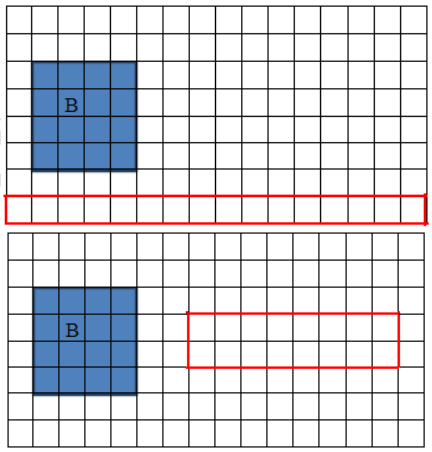
Monday	Tuesday
$\frac{2}{8}$	$\frac{3}{8}$

Since $\frac{3}{8}$ is more than $\frac{2}{8}$ or $\frac{1}{4}$, Keith sold more oranges on Tuesday.

No.	TEST ITEMS	WORKING COLUMN	*Do Not Write Here*
11.	Tick (✓) the most suitable unit used to measure the distance from San Fernando to Port of Spain. ☐ Centimetre (cm) ☑ Kilometre (km) ☐ Metre (m)	A centimetre is about the length of one finger nail. A metre is about the height of a desk. A kilometre is 1000 times the length of a metre. A kilometre is about the distance around a large playground. Therefore, the most suitable unit to measure the distance from San Fernando to Port of Spain is kilometres.	
12.	5 kilometres and 200 metres, expressed in metres is --- Answer: **5 200 metres**.	If 1 kilometre = 1000 metres then 5 kilometres $= 1000 \times 5$ $= 5000$ metres 5 kilometres and 200 metres, expressed in metres $= 5000$ $+ \quad 200$ 5200	

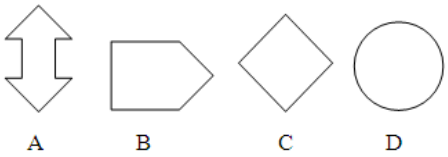
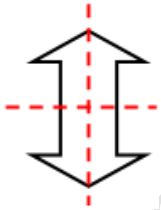
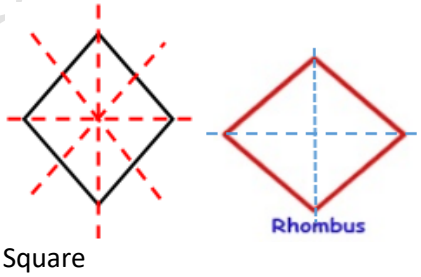
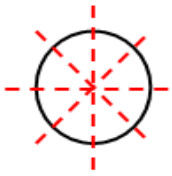
No.	TEST ITEMS	WORKING COLUMN	*Do Not Write Here*
13.	The scale shown below measures mass in kilograms.  The mass of the bag of flour is --- Answer is $4\frac{1}{2}$ kg.	 The pointer on the scale is pointing halfway between 4 and the next number. Though the next number after 4 is marked 0, it also represents 5. The mass of flour in the bag is therefore, $4\frac{1}{2}$kg.	

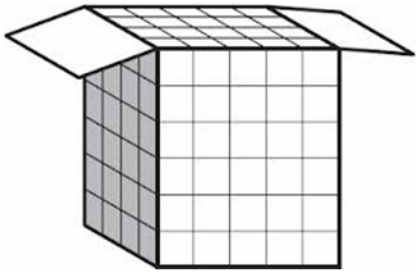
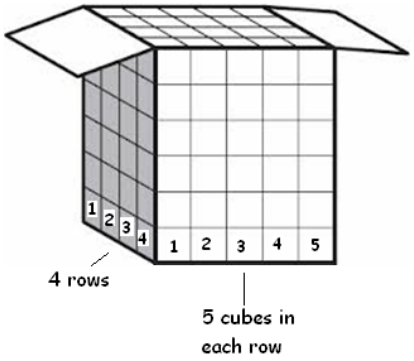
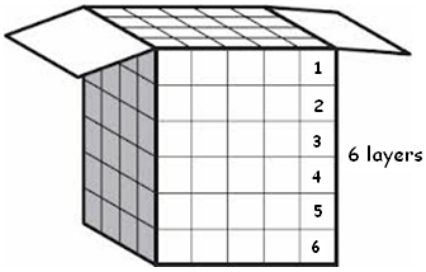
No.	TEST ITEMS	WORKING COLUMN	*Do Not Write Here*
14.	A cinema show started at the time shown below. 	a. Since the minute hand or longer hand of the clock points to 12, the time is an exact hour.  The shorter hand or hour hand points to 3.  The time is 3 o'clock which is the time that the show started.	
b.	What time did the show start? **Answer: 3 o'clock**	b. Counting backwards from 3 o' clock. One hour before 3 o'clock is 2 o'clock. $\frac{1}{2}$ hour before 2 o'clock is half past one. Therefore, $1\frac{1}{2}$ hours, before 3 o'clock is half past 1 or 1:30. Therefore, Patrick left home at half past one.	
c.	Patrick left home $1\frac{1}{2}$ hours before the show started. What time did he leave home? **Answer: Half past one**		

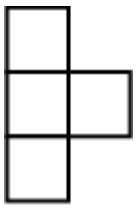
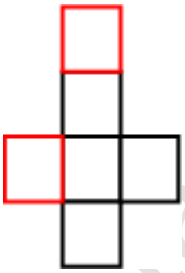
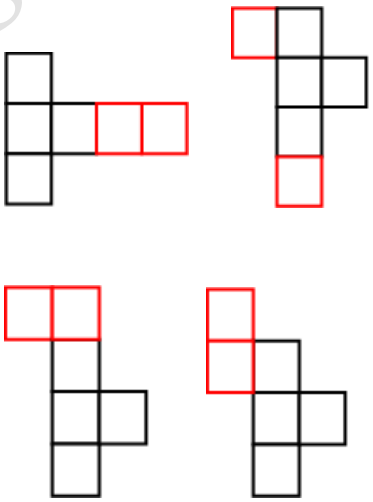
No.	TEST ITEMS	WORKING COLUMN	*Do Not Write Here*
15.	A square 'B' is drawn on the grid below. The grid is divided into unit squares.  	a. In B there are 4 rows of 4 squares each. This totals 4 + 4 + 4 + 4 or $4 \times 4 = 16$ squares. Each square is a square unit. Therefore, the area of square B is 16 square units. b. The area of the rectangle is also 16 square units. We may rearrange the squares of B to form a rectangle. This can be done as a single row of 16 squares  **OR** Two rows of 8 squares each 	
a.	Calculate the area of square 'B'. **Answer: 16 square units**		
b.	Draw a rectangle on the grid that has the same area as square 'B'. **Answer:**  		

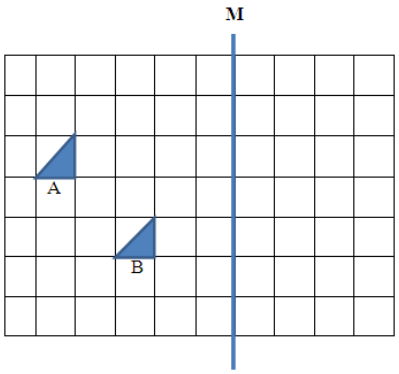
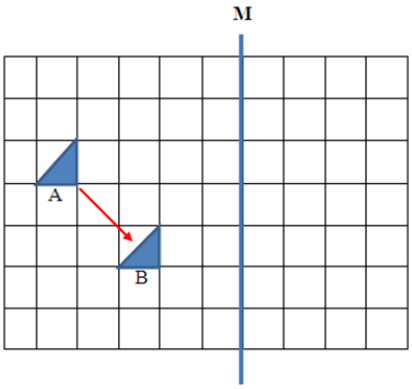
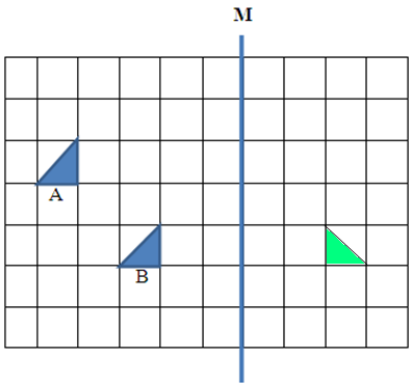
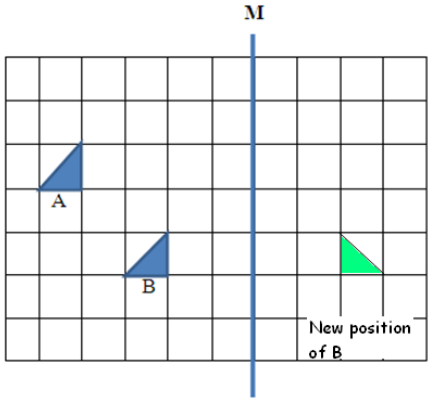
No.	TEST ITEMS	WORKING COLUMN	*Do Not Write Here*
16.	Nicole and Patsy rented the same car from Econo Car Rentals.	b. The rent of the car per week is $325. Rent paid by Nicole for all 6 weeks = $325 x 6 = ($300 + $25) x 6 = $300 x 6 + $25 x 6 = $1 800 + $150 = $ 1 950	
a.	Nicole rented the car for 6 weeks at $325 per week. How much did she pay to rent the car? **Answer: $1950**		
b.	Patsy rented the car for 2 weeks and paid $670. Who paid less money per week? **Answer: Nicole**	c. For 2 weeks, Patsy paid $670. Therefore, cost per week for the rental of Patsy's car $= \$670 \div 2$ = $335 $335 per week is paid by Patsy. $325 per week is paid by Nicole. $325 is less than $335. Therefore, Nicole paid less money per week than Patsy.	

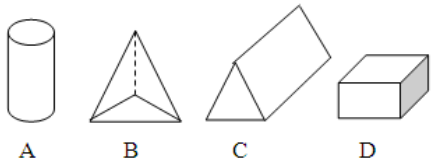
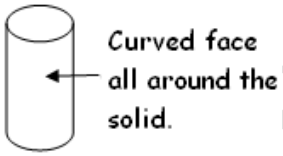
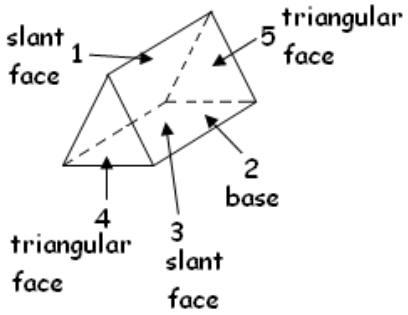
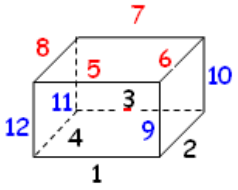
	H	T	O
2	6	7	$^{1}0$
	3	3	5

No.	TEST ITEMS	WORKING COLUMN	*Do Not Write Here*
17.	Which of the following shapes has only **one** line of symmetry?  **Answer: B**	Shape A has 2 lines of symmetry.  Shape B has 1 line of symmetry.  Shape C has 4 lines of symmetry if it is a square and 2 lines of symmetry if it is a rhombus.  Square Shape D has many lines of symmetry.  Therefore, B is the only shape given with one line of symmetry.	

No.	TEST ITEMS	WORKING COLUMN	*Do Not Write Here*
18.	The box below is **filled** with cubes of the same size. 	a. The bottom layer of the box has 4 rows with 5 cubes each. 	
a.	How many cubes were packed in the bottom layer of the box? **Answer: 20 cubes**	The number of cubes in the bottom layer of the box is $5 \times 4 = 20$ cubes.	
b.	How many cubes are needed to completely fill the box? **Answer: 120 cubes**	b. Each layer of the box will have 20 cubes. We count the number of layers needed to fill the box as shown.  A full box has 6 layers of 20 cubes The number of cubes needed: $= 20 \times 6$ $= 120$ cubes	

No.	TEST ITEMS	WORKING COLUMN	*Do Not Write Here*
19. a.	Name the shape that can be used to form a net of a cube. **Answer: Squares**	a. The faces of a cube are made up of squares.	
b.	Complete the diagram to show a net of a cube.  **Answer:** 	b. Six squares can be arranged to form the net of a cube. The incomplete shape has only 4 squares so we need to add 2 more squares. This can be done in many ways. Other possible nets include: 	

No.	TEST ITEMS	WORKING COLUMN	*Do Not Write Here*
20.	On the grid of unit squares below Triangle A is moved to the position of Triangle B.  	a. In the movement, the triangle B has not turned or flipped. The movement from A to B is therefore a slide.  	
a.	Circle the word which best describes the movement from A to B. **Flip** **Slide** **Turn**		
b.	Triangle B is flipped about the line M. Draw the new position of Triangle B. Answer:  	b. The new position of B is drawn below. The line M is a line of symmetry.  	

No.	TEST ITEMS	WORKING COLUMN	*Do Not Write Here*
21.	Four solids labeled A, B, C and D are shown below.  	a. Shape A, the cylinder has a curved face.  	
a.	Which of the solids has a curved face? **Answer: A**	b. Shape C, the triangular prism, has 5 faces, 3 rectangular faces and 2 triangular faces.  	
b.	Which solid has five faces? **Answer: C**		
c.	Which solid has twelve edges? **Answer: D**	c. Shape D, the cuboid has 12 edges - 4 on the base, 4 upright and 4 at the top. 4 + 4 + 4 = 12  	
d.	Which solid is NOT a prism? **Answer: B**	d. A prism is a solid that has two opposite sides that are the same shape and size. Shapes A, C and D are prisms. B is NOT a prism – it is a triangular pyramid.	

<table>
<tr><th>No.</th><th>TEST ITEMS</th><th>WORKING COLUMN</th><th>Do Not Write Here</th></tr>
<tr><td>22.</td><td>The following are scores of students of Standard Three in a Mathematics Test:

18, 16, 12, 16, 19, 20, 18, 17, 16, 14

What is the mode?

Answer: 16</td><td>Rewriting the scores in a table:

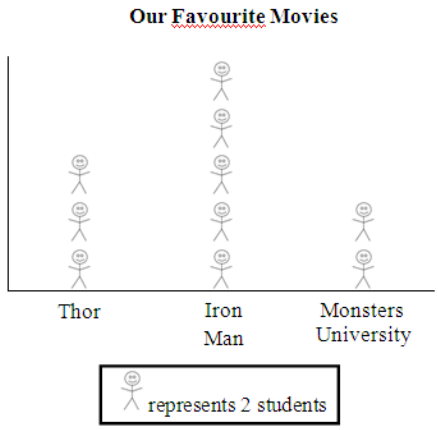
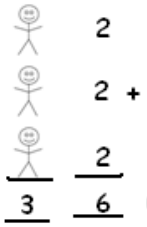
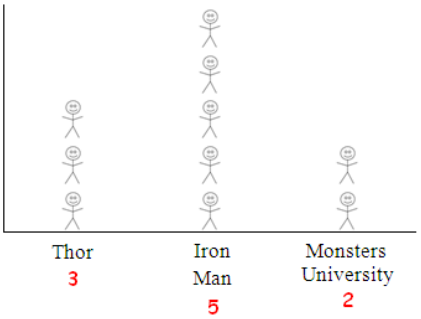
<table><tr><th>Score</th><th>Number of Times</th></tr><tr><td>12</td><td>1</td></tr><tr><td>14</td><td>1</td></tr><tr><td>16</td><td>3</td></tr><tr><td>17</td><td>1</td></tr><tr><td>18</td><td>2</td></tr><tr><td>19</td><td>1</td></tr><tr><td>20</td><td>1</td></tr></table>
The score which occurs most often is 16. Therefore, the mode is 16.</td><td></td></tr>
<tr><td>23.</td><td>The table below shows the shoe sizes of a class of Standard Three students.

<table><tr><th>Shoe Size</th><th>Number of Students</th></tr><tr><td>Size 4</td><td>18</td></tr><tr><td>Size 5</td><td>____</td></tr><tr><td>Size 6</td><td>15</td></tr><tr><td>Size 7</td><td>2</td></tr></table>
There are 50 students in the class. How many students wear Size 5?

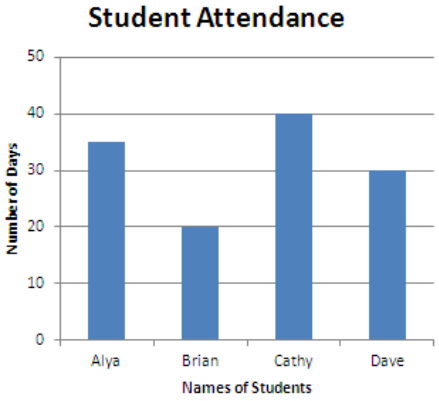
Answer: 15</td><td>The total number of students in the class is 50.

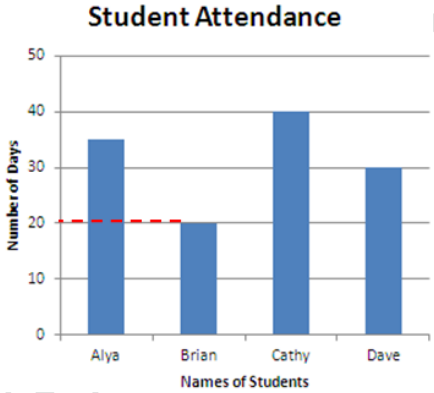
The number of students who wear sizes 4, 6 and 7 = 18 + 15 + 2 = 35
35 students do not wear sixe 5

The number of students who wear size 5 shoes =
Total number in the class – the number who do not wear size 5
= 50 – 35 = 15</td><td></td></tr>
</table>

No.	TEST ITEMS	WORKING COLUMN	*Do Not Write Here*
24.	The pictograph below shows the favourite movies of students in a class.  	a.  One picture represents 2 students. Three pictures will represent 3 x 2 = 6 students Therefore, the number of students who chose Thor as their favourite movie is 6.	
a.	How many students chose Thor as their favourite movie? **Answer: 6**		
b.	How many students are in the class? **Answer: 20**	b.  The total number of pictures = 3 + 5 + 2 = 10 Number of students in class = 2 × 10 = 20 students	

No.	TEST ITEMS	WORKING COLUMN	*Do Not Write Here*
25.	The bar graph below shows the number of days four students attended school for one term.	a. The height of the bar representing Brian's attendance is 20.	





Brian attended school for 20 days of the term.

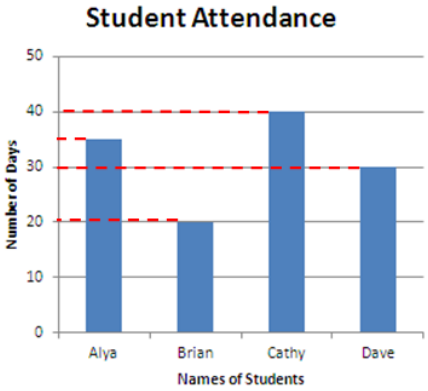
a. How many days did Brian attend school during the term?

Answer: 20 days

b. Which student attended school for five more days than Dave?

Answer: Alya

b.



Dave attended school for 30 days.

5 more days will be 30 + 5 = 35 days.

Alya attended school for 35 days which is 5 more days than Dave.

No.	TEST ITEMS	WORKING COLUMN	*Do Not Write Here*
c.	If the teacher is giving an award for the best attendance. Which student would receive the award? **Answer: Cathy**	c. The student with the best attendance would be the one who had the highest attendance. Cathy attended school for 40 days and this was the highest attendance in the group. Cathy would receive this award since she attended school more often than the rest of students.	
d.	If the number of school days in the term is 53, which student was absent for 23 days? **Answer: Dave**	d. The number of school days in the term = 53 A student who is absent for 23 days would be present for = 53 – 23 days = 30 days The student who attended school for 30 days is Dave.	

END OF TEST