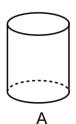
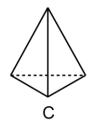
## Mathematica Centrum Together, let's shape the mathematicians of the future

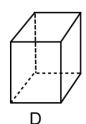
## **BYRON-GERMAIN PREPARATORY TEST 2018**

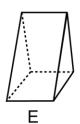
1. Which solid has 12 edges?











2. How many \$5 cereal boxes can you buy with \$24?

- A) 3
- B) 5
- C) 4
- D) 2
- E) 6

The value of X in the following equation: 2 + 9 + X + 3 - 2 = 13 is

- A) 1
- B) 3
- C) 2

- D) 4
- E) 0

The quotient of 210 ÷ 70 is

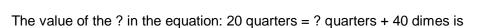
- A) 2 D) 4
- B) 3 E) 6
- C) 5



5. What fraction of the pie has been eaten?

- A) 1/6
- B) 1/5
- C) 1/4

- D) 1/3
- E) 1/2



- A) 6
- B) 7
- C) 8
- D) 5
- E) 4

7. The tens digit in the product of  $9 \times 15$  is

- A) 5
- B) 3
- C) 1
- D) 2
- E) 4

A) 5 B) 1 000 C) 100 D) 10 E) 1  12. Which geometrical transformation did Mathilda use to transform figure IV into figure  A) translation B) rotation of 90° C) reflection D) rotation of 45° E) ro  13. The number of sides plus the number of angles in an hexagon is equal to A) 12 B) 11 C) 8 D) 9 E) 1  14. A heart beats 10 times every 10 seconds. How many times will it beat in 2 minutes? A) 100 times B) 64 times C) 148 times D) 128 times E) 120 times  15. Mathilda watched 120 minutes of a 3 hour movie.													
9. The next term in the sequence below: 2, 3, 5, 8, 13, 21, is A) 32 B) 30 C) 31 D) 34 E) 33  10. Mathilda has 6 more books than Mathew. Together they have 30 books. How many books does Mathilda have? A) 15 B) 14 C) 16 D) 17 E) 1  11. 10 mm = ? cm A) 5 B) 1 000 C) 100 D) 10 E) 1  12. Which geometrical transformation did Mathilda use to transform figure IV into figure  A) translation B) rotation of 90° C) reflection D) rotation of 45° E) ro  13. The number of sides plus the number of angles in an hexagon is equal to A) 12 B) 11 C) 8 D) 9 E) 1  14. A heart beats 10 times every 10 seconds. How many times will it beat in 2 minutes? A) 100 times B) 64 times C) 148 times D) 128 times E) 120 times E) 120 times 15. Mathilda watched 120 minutes of a 3 hour movie. What fraction of the total movie did she watch? A) 3/4 B) 1/4 C) 1/2 C) 1/2 C) 2/3 C) 2/6  16. A small rectangular carton whose length measures 2 cm is carved out of a 7 cm x 5 cm rectangular carton. What is the perimeter of the carved carton shown here	8.	How many blocks are there in the pile?											
2, 3, 5, 8, 13, 21, is  A) 32 B) 30 C) 31  10. Mathilda has 6 more books than Mathew. Together they have 30 books. How many books does Mathilda have?  A) 15 B) 14 C) 16 D) 17 E) 1  11. 10 mm = ? cm A) 5 B) 1 000 C) 100 D) 10 E) 1  12. Which geometrical transformation did Mathilda use to transform figure IV into figure  A) translation B) rotation of 90° C) reflection D) rotation of 45° E) rotation of 45° E) rotation of 45° E) rotation of 45° E) 10  14. A heart beats 10 times every 10 seconds. How many times will it beat in 2 minutes? A) 100 times B) 64 times C) 148 times D) 128 times E) 120 times E) 120 times E) 120 times E) 120 times C) 148 times D) 128 times E) 120 times C) 148 times D) 128 times E) 120 times C) 148 times D) 128 times E) 120 times C) 148 times D) 128 times E) 120 times C) 148 times D) 128 times E) 120 times C) 148 times D) 128 times D) 128 times E) 120 times E) 120 times C) 148 times D) 128 times D) 128 times E) 120 times D) 128 times D) 128 times D) 128 times E) 120 times D) 128 times D) 148 times D) 128 ti				C) 12									
10. Mathilda has 6 more books than Mathew. Together they have 30 books. How many books does Mathilda have?  A) 15 B) 14 C) 16 D) 17 E) 11. 10 mm = ? cm  A) 5 B) 1 000 C) 100 D) 10 E) 1  12. Which geometrical transformation did Mathilda use to transform figure IV into figure  A) translation B) rotation of 90° C) reflection D) rotation of 45° E) rotation of 30° E) 11. The number of sides plus the number of angles in an hexagon is equal to  A) 12 B) 11 C) 8 D) 9 E) 11. The number of angles in an hexagon is equal to  A) 12 B) 11 C) 8 D) 9 E) 11. The number of angles in an hexagon is equal to  A) 100 times B) 64 times C) 148 times D) 128 times E) 120 times  B) 64 times C) 148 t	9.				\$								
How many books does Mathilda have?  A) 15 B) 14 C) 16 D) 17 E) 1  11. 10 mm = ? cm  A) 5 B) 1 000 C) 100 D) 10 E) 1  12. Which geometrical transformation did Mathilda use to transform figure IV into figure  A) translation B) rotation of 90° C) reflection D) rotation of 45° E) rotation of 30° E) 10 Sides plus the number of angles in an hexagon is equal to  A) 12 B) 11 C) 8 D) 9 E) 1  14. A heart beats 10 times every 10 seconds. How many times will it beat in 2 minutes?  A) 100 times B) 64 times C) 148 times D) 128 times E) 120 times  15. Mathilda watched 120 minutes of a 3 hour movie. What fraction of the total movie did she watch?  A) 3/4 B) 1/4 C) 1/2 D) 2/3 E) 2/5  16. A small rectangular carton whose length measures 2 cm is carved out of a 7 cm x 5 cm rectangular carton. What is the perimeter of the carved carton shown here				C) 31									
A) 5 B) 1 000 C) 100 D) 10 E) 1  12. Which geometrical transformation did Mathilda use to transform figure IV into figure  A) translation B) rotation of 90° C) reflection D) rotation of 45° E) ro  13. The number of sides plus the number of angles in an hexagon is equal to A) 12 B) 11 C) 8 D) 9 E) 7  14. A heart beats 10 times every 10 seconds. How many times will it beat in 2 minutes? A) 100 times B) 64 times C) 148 times D) 128 times E) 120 times  15. Mathilda watched 120 minutes of a 3 hour movie. What fraction of the total movie did she watch? A) 3/4 B) 1/4 C) 1/2 D) 2/3 E) 2/5  16. A small rectangular carton whose length measures 2 cm is carved out of a 7 cm x 5 cm rectangular carton. What is the perimeter of the carved carton shown here	10.												
A) 5 B) 1 000 C) 100 D) 10 E) 1  12. Which geometrical transformation did Mathilda use to transform figure IV into figure  A) translation B) rotation of 90° C) reflection D) rotation of 45° E) ro  13. The number of sides plus the number of angles in an hexagon is equal to A) 12 B) 11 C) 8 D) 9 E) 1  14. A heart beats 10 times every 10 seconds. How many times will it beat in 2 minutes? A) 100 times B) 64 times C) 148 times D) 128 times E) 120 times  15. Mathilda watched 120 minutes of a 3 hour movie. What fraction of the total movie did she watch? A) 3/4 B) 1/4 C) 1/2 C) 1/3 C) 1/4 C) 1/2 C) 1/2 C) 1/2 C) 1/3 C) 1/4 C) 1/2 C) 1/2 C) 1/2 C) 1/3 C) 1/4 C) 1/4 C) 1/5 cm		A) 15	B) 14	C) 16	D) 17	E) 18							
A) translation B) rotation of 90° C) reflection D) rotation of 45° E) rotation of sides plus the number of angles in an hexagon is equal to A) 12 B) 11 C) 8 D) 9 E) 7  14. A heart beats 10 times every 10 seconds. How many times will it beat in 2 minutes? A) 100 times B) 64 times C) 148 times D) 128 times E) 120 times  15. Mathilda watched 120 minutes of a 3 hour movie. What fraction of the total movie did she watch? A) 3/4 B) 1/4 C) 1/2 D) 2/3 E) 2/5  16. A small rectangular carton whose length measures 2 cm is carved out of a 7 cm x 5 cm rectangular carton. What is the perimeter of the carved carton shown here	11.	10 mm = ? cm											
A) translation B) rotation of 90° C) reflection D) rotation of 45° E) rotation of sides plus the number of angles in an hexagon is equal to A) 12 B) 11 C) 8 D) 9 E) 7  14. A heart beats 10 times every 10 seconds. How many times will it beat in 2 minutes? A) 100 times B) 64 times C) 148 times D) 128 times E) 120 times 15. Mathilda watched 120 minutes of a 3 hour movie. What fraction of the total movie did she watch? A) 3/4 B) 1/4 C) 1/2 D) 2/3 E) 2/5  16. A small rectangular carton whose length measures 2 cm is carved out of a 7 cm x 5 cm rectangular carton. What is the perimeter of the carved carton shown here		A) 5	B) 1 000	C) 100	D) 10	E) 1							
A) translation B) rotation of 90° C) reflection D) rotation of 45° E) rotation of 90° C) reflection D) rotation of 45° E) rotation of 30° E) rotation of 45° E) rotation of 45° E) rotation of 45° E) rotation of 45° E) rotation of 30° E) 13° E) 14° E) 11° E) 11° E) 11° E) 12° E) 12° E) 11°	12.	Which geometrical transformation did Mathilda use to transform figure IV into figure V?											
<ul> <li>13. The number of sides plus the number of angles in an hexagon is equal to <ul> <li>A) 12</li> <li>B) 11</li> <li>C) 8</li> <li>D) 9</li> <li>E) 1</li> </ul> </li> <li>14. A heart beats 10 times every 10 seconds. How many times will it beat in 2 minutes? <ul> <li>A) 100 times</li> <li>B) 64 times</li> <li>C) 148 times</li> <li>D) 128 times</li> <li>E) 120 times</li> </ul> </li> <li>15. Mathilda watched 120 minutes of a 3 hour movie. <ul> <li>What fraction of the total movie did she watch?</li> <li>A) 3/4</li> <li>B) 1/4</li> <li>C) 1/2</li> <li>5 cm</li> </ul> </li> <li>16. A small rectangular carton whose length measures 2 cm is carved out of a 7 cm x 5 cm rectangular carton. What is the perimeter of the carved carton shown here</li> </ul>		I	II	III	IV	٧							
<ul> <li>13. The number of sides plus the number of angles in an hexagon is equal to <ul> <li>A) 12</li> <li>B) 11</li> <li>C) 8</li> <li>D) 9</li> <li>E) 1</li> </ul> </li> <li>14. A heart beats 10 times every 10 seconds. How many times will it beat in 2 minutes? <ul> <li>A) 100 times</li> <li>B) 64 times</li> <li>C) 148 times</li> <li>D) 128 times</li> <li>E) 120 times</li> </ul> </li> <li>15. Mathilda watched 120 minutes of a 3 hour movie. <ul> <li>What fraction of the total movie did she watch?</li> <li>A) 3/4</li> <li>B) 1/4</li> <li>C) 1/2</li> <li>5 cm</li> </ul> </li> <li>16. A small rectangular carton whose length measures 2 cm is carved out of a 7 cm x 5 cm rectangular carton. What is the perimeter of the carved carton shown here</li> </ul>													
<ul> <li>13. The number of sides plus the number of angles in an hexagon is equal to <ul> <li>A) 12</li> <li>B) 11</li> <li>C) 8</li> <li>D) 9</li> <li>E) 1</li> </ul> </li> <li>14. A heart beats 10 times every 10 seconds. How many times will it beat in 2 minutes? <ul> <li>A) 100 times</li> <li>B) 64 times</li> <li>C) 148 times</li> <li>D) 128 times</li> <li>E) 120 times</li> </ul> </li> <li>15. Mathilda watched 120 minutes of a 3 hour movie. <ul> <li>What fraction of the total movie did she watch?</li> <li>A) 3/4</li> <li>B) 1/4</li> <li>C) 1/2</li> <li>5 cm</li> </ul> </li> <li>16. A small rectangular carton whose length measures 2 cm is carved out of a 7 cm x 5 cm rectangular carton. What is the perimeter of the carved carton shown here</li> </ul>													
<ul> <li>13. The number of sides plus the number of angles in an hexagon is equal to <ul> <li>A) 12</li> <li>B) 11</li> <li>C) 8</li> <li>D) 9</li> <li>E) 1</li> </ul> </li> <li>14. A heart beats 10 times every 10 seconds. How many times will it beat in 2 minutes? <ul> <li>A) 100 times</li> <li>B) 64 times</li> <li>C) 148 times</li> <li>D) 128 times</li> <li>E) 120 times</li> </ul> </li> <li>15. Mathilda watched 120 minutes of a 3 hour movie. <ul> <li>What fraction of the total movie did she watch?</li> <li>A) 3/4</li> <li>B) 1/4</li> <li>C) 1/2</li> <li>5 cm</li> </ul> </li> <li>16. A small rectangular carton whose length measures 2 cm is carved out of a 7 cm x 5 cm rectangular carton. What is the perimeter of the carved carton shown here</li> </ul>													
<ul> <li>13. The number of sides plus the number of angles in an hexagon is equal to <ul> <li>A) 12</li> <li>B) 11</li> <li>C) 8</li> <li>D) 9</li> <li>E) 1</li> </ul> </li> <li>14. A heart beats 10 times every 10 seconds. How many times will it beat in 2 minutes? <ul> <li>A) 100 times</li> <li>B) 64 times</li> <li>C) 148 times</li> <li>D) 128 times</li> <li>E) 120 times</li> </ul> </li> <li>15. Mathilda watched 120 minutes of a 3 hour movie. <ul> <li>What fraction of the total movie did she watch?</li> <li>A) 3/4</li> <li>B) 1/4</li> <li>C) 1/2</li> <li>5 cm</li> </ul> </li> <li>16. A small rectangular carton whose length measures 2 cm is carved out of a 7 cm x 5 cm rectangular carton. What is the perimeter of the carved carton shown here</li> </ul>		Δ) translation	R) rotation of 90°	C) reflection	D) rotation of 45°	E) rotation of 180°							
A) 12 B) 11 C) 8 D) 9 E) 1  14. A heart beats 10 times every 10 seconds. How many times will it beat in 2 minutes?  A) 100 times B) 64 times C) 148 times D) 128 times E) 120 times  15. Mathilda watched 120 minutes of a 3 hour movie. What fraction of the total movie did she watch?  A) 3/4 B) 1/4 C) 1/2 D) 2/3 E) 2/5  16. A small rectangular carton whose length measures 2 cm is carved out of a 7 cm x 5 cm rectangular carton. What is the perimeter of the carved carton shown here	13	•	•	•		L) Totalion of 100							
<ul> <li>14. A heart beats 10 times every 10 seconds. How many times will it beat in 2 minutes?</li> <li>A) 100 times B) 64 times C) 148 times D) 128 times E) 120 times</li> <li>15. Mathilda watched 120 minutes of a 3 hour movie. What fraction of the total movie did she watch?</li> <li>A) 3/4 B) 1/4 C) 1/2 D) 2/3 E) 2/5</li> <li>16. A small rectangular carton whose length measures 2 cm is carved out of a 7 cm x 5 cm rectangular carton. What is the perimeter of the carved carton shown here</li> </ul>			·	_		E) 10							
A) 100 times B) 64 times C) 148 times D) 128 times E) 120 times  15. Mathilda watched 120 minutes of a 3 hour movie. What fraction of the total movie did she watch?  A) 3/4 B) 1/4 C) 1/2 D) 2/3 E) 2/5  16. A small rectangular carton whose length measures 2 cm is carved out of a 7 cm x 5 cm rectangular carton. What is the perimeter of the carved carton shown here						,							
<ul> <li>Mathilda watched 120 minutes of a 3 hour movie. What fraction of the total movie did she watch?  A) 3/4 B) 1/4 C) 1/2 D) 2/3 B) 2/5  16. A small rectangular carton whose length measures 2 cm is carved out of a 7 cm x 5 cm rectangular carton. What is the perimeter of the carved carton shown here</li> </ul>		A) 100 times	B) 64 times	·									
A) 3/4 B) 1/4 C) 1/2 D) 2/3 E) 2/5  16. A small rectangular carton whose length measures 2 cm is carved out of a 7 cm x 5 cm rectangular carton. What is the perimeter of the carved carton shown here	15.	Mathilda watched 1	120 minutes of a 3 h		2 cm	2 cm							
16. A small rectangular carton whose length measures 2 cm is carved out of a 7 cm x 5 cm rectangular carton. What is the perimeter of the carved carton shown here		A) 3/4	B) 1/4		5 cm								
2 cm is carved out of a 7 cm x 5 cm rectangular carton.  What is the perimeter of the carved carton shown here	16	•	,	th measures									
	10.	2 cm is carved out What is the perime	of a 7 cm x 5 cm red	7 cm									
A) 29 cm B) 30 cm C) 26 cm D) 28 cm E) 2		A) 29 cm	B) 30 cm	C) 26 cm	D) 28 cm	E) 27 cm							

The sum of two consecutive odd numbers is 16. What is their product?								
A) 64 D) 56	B) 35 E) 99	C)	) 63					
				now		10	11 12	1 2
	B) 1 time E) 2 times	C)	) 20 times			9	•	3
A bag contains 4 red balls, 3 green balls, and 2 blue balls.  If you randomly choose one of these balls, what is the probability that the ball chosen is blue?								
A) 2/6 D) 2/3	B) 2/9 E) 1/2	C)	) 2/5		ſ	χ		
a 80 cm x 90 cm re	ctangular surface. V		at is the	80 cm				
A) 30 cm D) 10 cm	B) 20 cm E) 15 cm	C)						
costing \$3 and \$2 6					90 cm			
A) 9	B) 5	C)	) 8		D)	12		E) 7
	A) 64 D) 56  If the minute hand of many times will the A) 5 times D) 60 times  A bag contains 4 realifyour andomly chorobability that the A) 2/6 D) 2/3  Melissa has used so a 80 cm x 90 cm realingth of the side of A) 30 cm D) 10 cm  Mathusalem has parcosting \$3 and \$2 cc could he have bougeness.	A) 64 B) 35 D) 56 E) 99  If the minute hand of a clock goes arous many times will the hour hand go arous A) 5 times B) 1 time D) 60 times B) 1 time D) 60 times E) 2 times  A bag contains 4 red balls, 3 green ball If you randomly choose one of these bay probability that the ball chosen is blue?  A) 2/6 B) 2/9 D) 2/3 B) 2/9 E) 1/2  Melissa has used square tiles to comple a 80 cm x 90 cm rectangular surface. We length of the side of tile X?  A) 30 cm B) 20 cm D) 10 cm B) 20 cm Costing \$3 and \$2 each. How many \$3 could he have bought?	A) 64 B) 35 C) B) 99  If the minute hand of a clock goes around many times will the hour hand go around?  A) 5 times B) 1 time C) B) 2 times  A bag contains 4 red balls, 3 green balls, If you randomly choose one of these balls probability that the ball chosen is blue?  A) 2/6 B) 2/9 C) A) 2/6 B) 2/9 C) Melissa has used square tiles to complete a 80 cm x 90 cm rectangular surface. Whalength of the side of tile X?  A) 30 cm B) 20 cm C) C) Mathusalem has paid \$30 for glass contain costing \$3 and \$2 each. How many \$3 co could he have bought?	A) 64 B) 35 C) 63 D) 56 E) 99  If the minute hand of a clock goes around 60 times, handy times will the hour hand go around?  A) 5 times B) 1 time C) 20 times D) 60 times E) 2 times  A bag contains 4 red balls, 3 green balls, and 2 blue If you randomly choose one of these balls, what is the probability that the ball chosen is blue?  A) 2/6 B) 2/9 C) 2/5 D) 2/3 E) 1/2  Melissa has used square tiles to completely cover a 80 cm x 90 cm rectangular surface. What is the length of the side of tile X?  A) 30 cm B) 20 cm C) 25 cm D) 10 cm E) 15 cm  Mathusalem has paid \$30 for glass containers costing \$3 and \$2 each. How many \$3 containers could he have bought?	A) 64 B) 35 C) 63 D) 56 E) 99  If the minute hand of a clock goes around 60 times, how many times will the hour hand go around?  A) 5 times B) 1 time C) 20 times D) 60 times E) 2 times  A bag contains 4 red balls, 3 green balls, and 2 blue balls. If you randomly choose one of these balls, what is the probability that the ball chosen is blue?  A) 2/6 B) 2/9 C) 2/5 D) 2/3 E) 1/2  Melissa has used square tiles to completely cover a 80 cm x 90 cm rectangular surface. What is the length of the side of tile X?  80 cm A) 30 cm B) 20 cm C) 25 cm D) 10 cm E) 15 cm  Mathusalem has paid \$30 for glass containers costing \$3 and \$2 each. How many \$3 containers could he have bought?	A) 64 B) 35 C) 63 D) 56 E) 99  If the minute hand of a clock goes around 60 times, how many times will the hour hand go around?  A) 5 times B) 1 time C) 20 times D) 60 times E) 2 times  A bag contains 4 red balls, 3 green balls, and 2 blue balls. If you randomly choose one of these balls, what is the probability that the ball chosen is blue?  A) 2/6 B) 2/9 C) 2/5 D) 2/3 E) 1/2  Melissa has used square tiles to completely cover a 80 cm x 90 cm rectangular surface. What is the length of the side of tile X?  80 cm A) 30 cm B) 20 cm C) 25 cm D) 10 cm E) 15 cm  Mathusalem has paid \$30 for glass containers costing \$3 and \$2 each. How many \$3 containers could he have bought?	A) 64 B) 35 C) 63 D) 56 E) 99  If the minute hand of a clock goes around 60 times, how many times will the hour hand go around?  A) 5 times B) 1 time C) 20 times D) 60 times E) 2 times  A bag contains 4 red balls, 3 green balls, and 2 blue balls. If you randomly choose one of these balls, what is the probability that the ball chosen is blue?  A) 2/6 B) 2/9 C) 2/5 D) 2/3 E) 1/2  Melissa has used square tiles to completely cover a 80 cm x 90 cm rectangular surface. What is the length of the side of tile X?  80 cm  A) 30 cm B) 20 cm C) 25 cm D) 10 cm E) 15 cm  Mathusalem has paid \$30 for glass containers costing \$3 and \$2 each. How many \$3 containers could he have bought?	D) 56 E) 99  If the minute hand of a clock goes around 60 times, how many times will the hour hand go around?  A) 5 times B) 1 time C) 20 times D) 60 times E) 2 times  A bag contains 4 red balls, 3 green balls, and 2 blue balls. If you randomly choose one of these balls, what is the probability that the ball chosen is blue?  A) 2/6 B) 2/9 C) 2/5 D) 2/3 E) 1/2  Melissa has used square tiles to completely cover a 80 cm x 90 cm rectangular surface. What is the length of the side of tile X?  A) 30 cm B) 20 cm C) 25 cm D) 10 cm E) 15 cm  Mathusalem has paid \$30 for glass containers costing \$3 and \$2 each. How many \$3 containers could he have bought?