

Placement Test for
Primary Mathematics 6B

1. Find the greatest common factors. [2]
- (a) 6, 12, and 18
- (b) 42, 70, and 98
2. Which of the following statements **are** true? [1]
- (A) The sum of 2 and 3 is equal to the sum of 3 and 2.
- (B) The difference between 45 and 56 is equal to the difference between 56 and 45.
- (C) The product of 7 and 8 is the same as the product of 8 and 7.
- (D) The quotient of 6 and 2 is the same as the quotient of 2 and 6.
3. Which of the following statements **are** true? [1]
- (A) In $2 + 5 + 5 + 6$, you can add 5 to 5 first.
- (B) In $19 - 9 - 9$, you can subtract 9 from 9 first.
- (C) In $8 \times 6 \times 5$, you can multiply 6 and 5 first.
- (D) In $270 \div 90 \div 10$, you can divide 90 by 10 first.

4. Which of the following statements **are** true? [1]

Ⓐ $5 \times (2 + 8) = 5 \times 2 + 5 \times 8$

Ⓑ $5 \times (9 - 4) = 5 \times 9 - 5 \times 4$

Ⓒ $80 \div (10 - 8) = 80 \div 10 - 80 \div 8$

Ⓓ $(30 + 60) \div 3 = 30 \div 3 + 60 \div 3$

5. Find the values. [4]

(a) $10 - 42 \div 7 + 8$

(b) $18 - 6 \div 3 \times 2$

(c) $40 - (17 + 6)$

(d) $(2 + 3) \times 6 - 4$

6. Write algebraic expressions for the following statements. [4]

(a) sum of k and 6

(b) product of m and 7

(c) decrease n by 9

(d) sum of 3 and product of 2 and p

7. Evaluate each of the expressions when $y = 2$. [2]

(a) $\frac{y}{4} + 3 - y$

(b) $12 - 3(y + 1)$

8. Fill in each blank with $<$ or $>$. [4]

(a) $6 + 7$ 15

(b) $20 - 3$ 16

(c) $\frac{7}{20}$ 0.3

(d) -25 -23

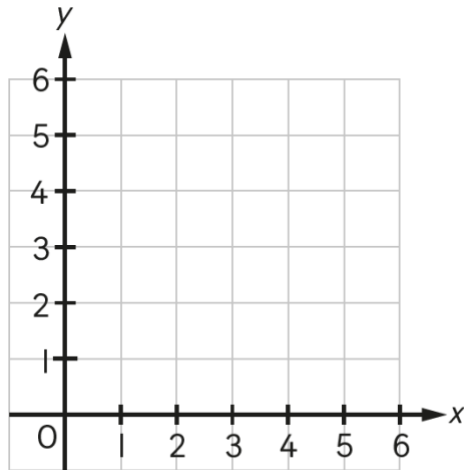
9. Mark and label these points on the coordinate plane. [4]

Point $A(4, 5)$

Point $B(0, 2)$

Point $C(3, 0)$

Point $D(5, 4)$

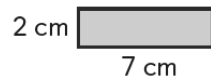


10. Find the area of [2]

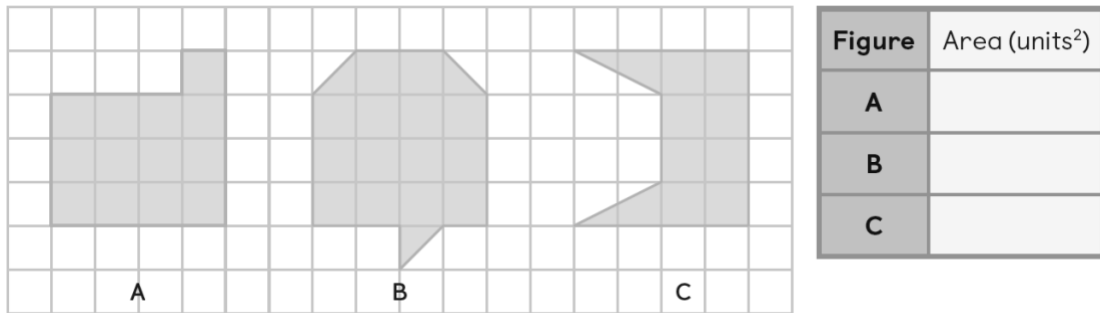
(a) a square of side length 4 centimeters.



(b) a 7 centimeters by 2 centimeters rectangle.



11. Find the area of each figure in square units. [3]



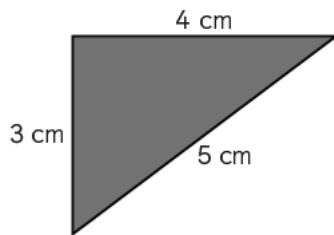
12. Fill in the blanks. [3]

- (a) An _____ triangle has 3 equal sides and 3 equal angles.
- (b) An _____ triangle has 2 equal sides and 2 equal angles.
- (c) A _____ triangle has no equal sides and no equal angles.

13. Put a ✓ to show the properties of these quadrilaterals. [3]

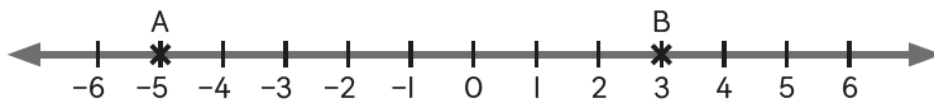
	Parallelogram	Rhombus	Trapezoid
At least 1 pair of opposite sides are parallel.			
Opposite sides are equal.			
All sides are equal.			

14. Find the area of the right triangle. [1]



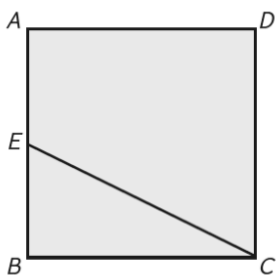
- (A) 6 cm^2 (B) 7.5 cm^2
(C) 10 cm^2 (D) 12 cm^2

15. What is the distance between point A and point B on the number line? [1]



- (A) 2 units (B) 3 units
(C) 5 units (D) 8 units

16. Point E is a point of the square $ABCD$ of side length 6 inches such that $AE = EB$, as shown in the diagram Find the area of $AECD$. [1]



- (A) 36 ft^2 (B) 27 ft^2
(C) 18 ft^2 (D) 9 ft^2

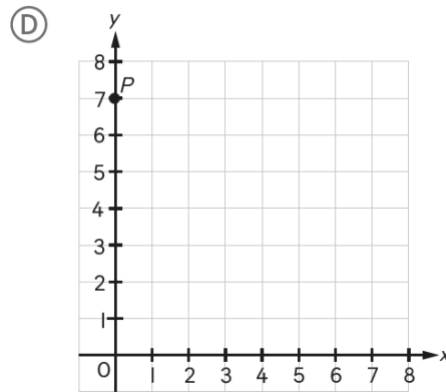
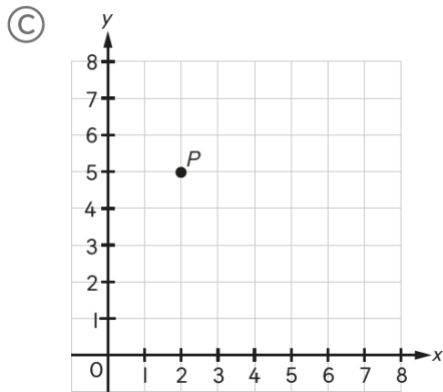
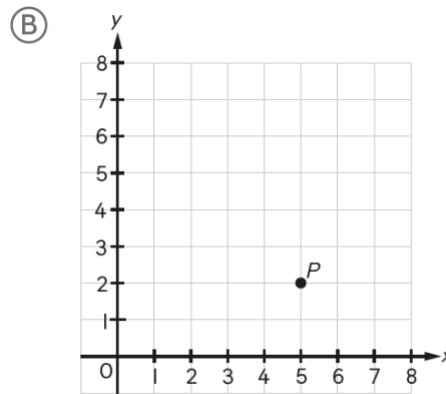
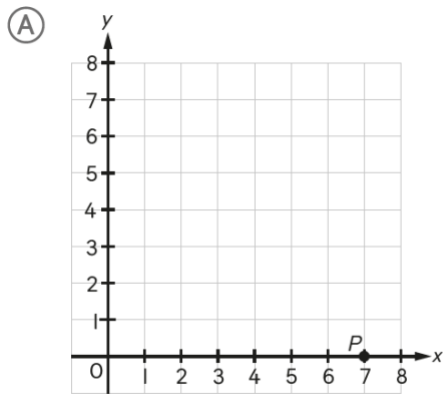
17. Find the value of each of the following. [3]

(a) $|7| = \underline{\hspace{2cm}}$

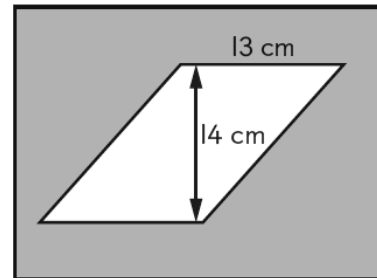
(b) $|-10| = \underline{\hspace{2cm}}$

(c) $|-2| + |-3| = \underline{\hspace{2cm}}$

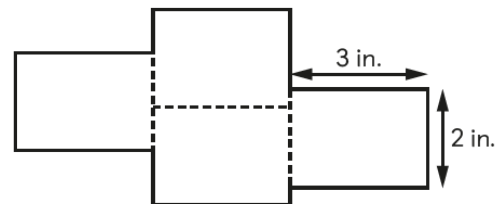
18. Which coordinate grid shows point P at $(2, 5)$? [1]



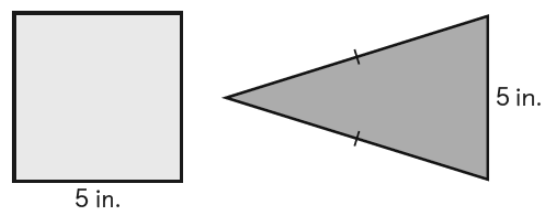
19. A rectangular piece of paper measures 33 centimeters by 25 centimeters. A parallelogram is cut off from the piece of paper as shown. Find the area of the remaining piece of paper. [1]



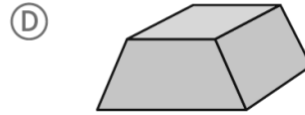
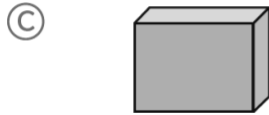
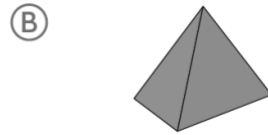
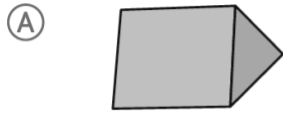
20. The figure is made up of 4 identical rectangles each measuring 3 inches by 2 inches. Find the perimeter of the figure. [1]



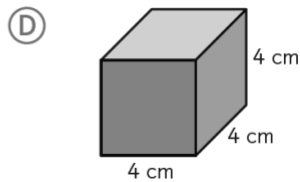
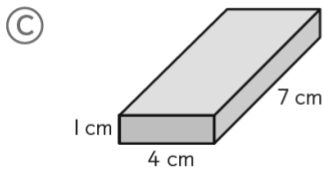
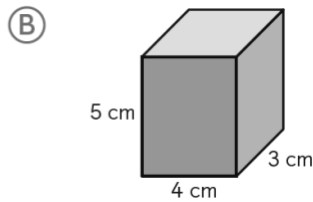
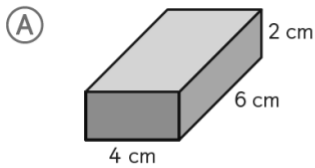
21. The square and the isosceles triangle have equal perimeters. Find the unknown side length of the triangle. [1]



22. Which of the following is a rectangular prism? [1]



23. Which of the following has the greatest volume? [1]



24. Find the product. Show your work. [2]

(a) $2.3 \times 12 \times 1.5 =$

(b) $0.3 \times 1.1 \times 0.7 =$

25. Find the product. Show your work. [2]

(a) $\frac{2}{3} \times \frac{3}{5} \times \frac{1}{6} =$

(b) $1\frac{1}{2} \times \frac{4}{5} \times 2\frac{5}{6} =$

26. Find the product. Show your work. [2]

(a) $\frac{7}{8} \div \frac{3}{4} =$

(b) $3\frac{4}{5} \div \frac{7}{10} =$

27. Solve. [2]

(a) $2(3 \times 4) + 2(4 \times 7) + 2(5 \times 2) =$

(b) $2(3 \times 4 + 4 \times 7 + 5 \times 2) =$

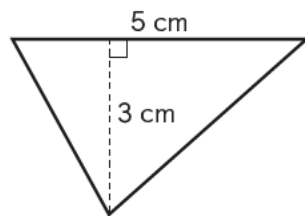
28. Find the volume. [2]

(a) A rectangular tank that is 7 feet long, 5 feet wide, and 2 feet tall.

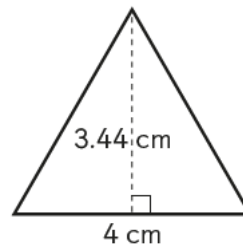
(b) A rectangular prism with a base area of 35 square centimeters and a height of 6 centimeters.

29. Find the area of each triangle. [2]

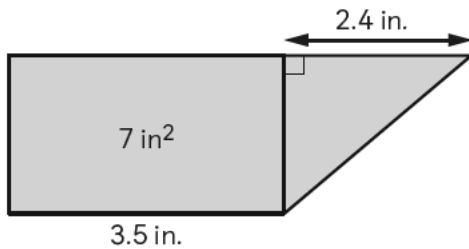
(a)



(b)



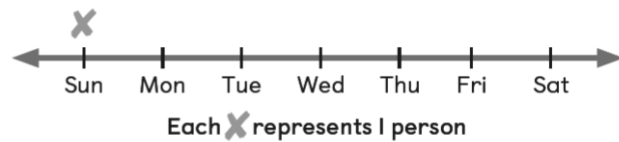
30. In the figure, the area of the rectangle is 7 square inches.
Find the area of the whole figure. [1]



31. Jane asks a group of 25 students Which day of the week does your birthday fall on? She records their responses in the table.

[10]

Day	Tally
Sunday	
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	



- (a) Complete the line plot to show the data.
- (b) Fill in the blanks.

Most students have their birthdays on _____.

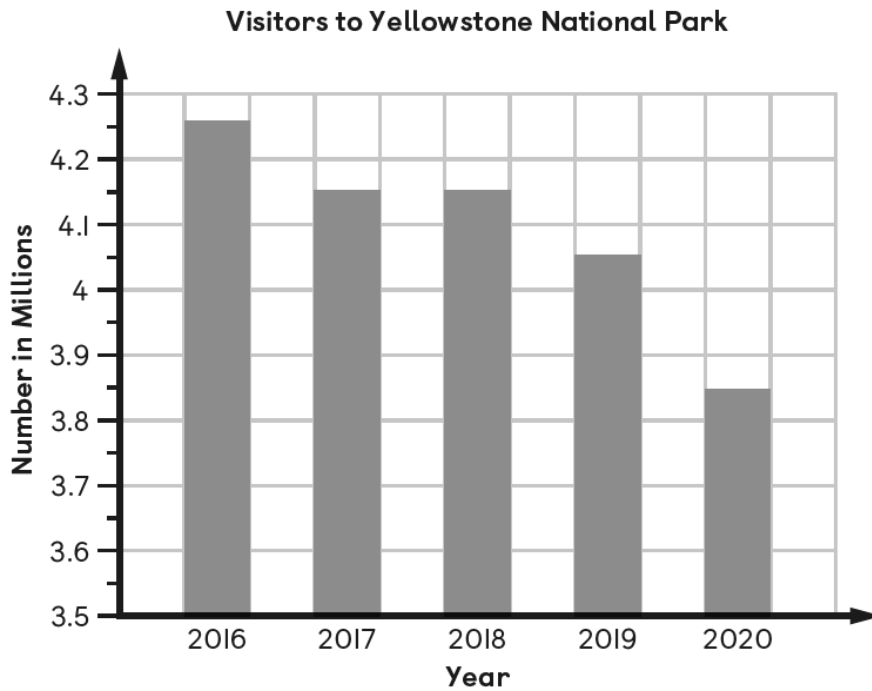
There are _____ students who have their birthday on this day.

There is one student whose birthday falls on _____.

6 students have their birthdays on _____.

32. The graph shows the number of visitors to Yellowstone National Park from 2016 to 2020.

[4]



Fill in the blanks.

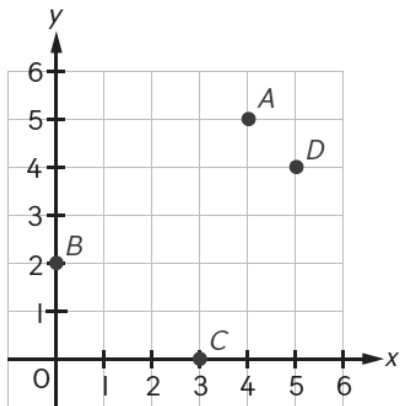
In 2016, there were _____ visitors to the Yellowstone National Park.

The number of visitors decreased by _____ from 2016 to 2017.

There were as many visitors in _____ as in _____.

Answer Key

1. (a) 6 (b) 14
2. A, C
3. A, C
4. A, B, D
5. (a) 12 (b) 14
(c) 17 (d) 26
6. (a) $k + 6$ or $6 + k$
(b) $7m$
(c) $n - 9$
(d) $3 + 2p$ or $2p + 3$
7. (a) $1\frac{1}{2}$ (b) 3
8. (a) $<$ (b) $>$
(c) $>$ (d) $<$
- 9.



10. (a) 16 cm^2 (b) 14 cm^2
- 11.

Figure	Area (units ²)
A	13
B	$15\frac{1}{2}$
C	10

12. (a) equilateral

- (b) isosceles
- (c) scalene

13.

	Parallelogram	Rhombus	Trapezoid
At least 1 pair of opposite sides are parallel.	✓	✓	✓
Opposite sides are equal.	✓	✓	
All sides are equal.		✓	

14. A

15. D

16. B

17. (a) 7 (b) 10 (c) 5

18. C

19. 643 cm²

20. 26 in.

21. $7\frac{1}{2}$ in.

22. C

23. D

24. (a) 41.4 (b) 0.231

25. (a) $\frac{1}{15}$ (b) $3\frac{2}{5}$

26. (a) $1\frac{1}{6}$ (b) $5\frac{3}{7}$

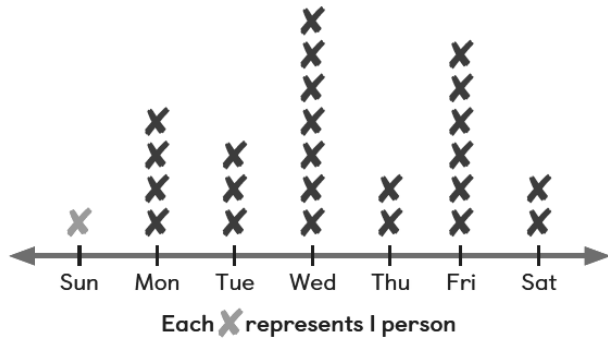
27. (a) 100 (b) 100

28. (a) 70 ft³ (b) 210 cm³

29. (a) $7\frac{1}{2}$ cm² (b) 6.88 cm²

30. 9.4 in²

31. (a)



(b) Wednesday

7

Sunday

Friday

32. 4.25 million

1 million

2017

2018