

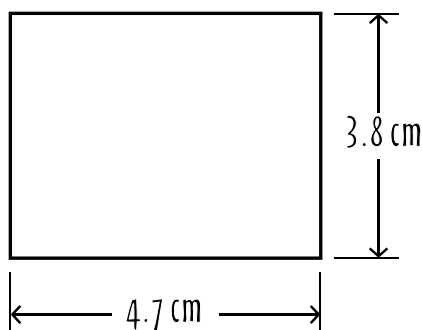
## Number Operations

5. Calculate: 
$$\begin{array}{r} 36.47 \\ \times 4 \\ \hline \end{array}$$

- (A) 124.68
- (B) 1246.8
- (C) 14.588
- (D) 145.88

6. What is the area of the rectangle?

- (A)  $5.17 \text{ cm}^2$
- (B)  $8.5 \text{ cm}^2$
- (C)  $17.0 \text{ cm}^2$
- (D)  $17.86 \text{ cm}^2$



7. Calculate:  $6.24 \div 3$

- (A) 0.28
- (B) 0.208
- (C) 2.8
- (D) 2.08

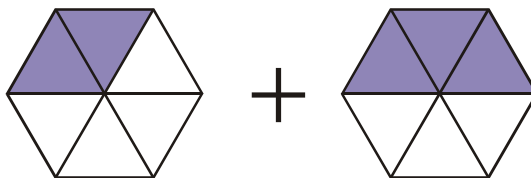
8. Calculate:  $0.4 \overline{)6.24}$

- (A) 1.56
- (B) 15.6
- (C) 0.156
- (D) 156.0

9. Karen and Wayne each bought a Rex Goudie CD. Karen paid \$13.97. Wayne's CD cost \$16.94. Who got the better deal and by how much?
- (A) Karen by \$2.97  
 (B) Karen by \$3.03  
 (C) Wayne by \$2.97  
 (D) Wayne by \$3.03
10. If the product of 8 and 2 is increased by 5, what would be the result?
- (A) 11  
 (B) 15  
 (C) 21  
 (D) 56
11. John was training for a track and field competition. He ran a total distance of 11.25 km in five days. If he ran the same distance each day, how far did he run each day?
- (A) 2.05 km  
 (B) 2.25 km  
 (C) 56.25 km  
 (D) 67.25 km

12. Which expression matches the model?

- (A)  $\frac{1}{6} + \frac{1}{2}$   
 (B)  $\frac{1}{6} + \frac{3}{4}$   
 (C)  $\frac{2}{6} + \frac{1}{2}$   
 (D)  $\frac{2}{6} + \frac{2}{3}$



1(a) Think of a situation in your life, when you are not doing school work or homework, that you would use multiplication. Use pictures and numbers to represent the situation.



1(b) Explain why you would use multiplication in this situation.

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3. Use the visual and your own ideas to write and solve a word problem using multiplication or division.

Word Problem:

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Solution:



Circle the operation you used: **multiplication** or **division**. Explain why you chose this operation to solve your problem.

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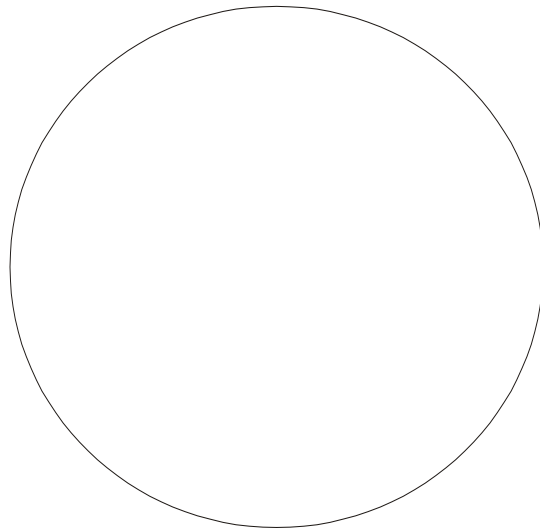
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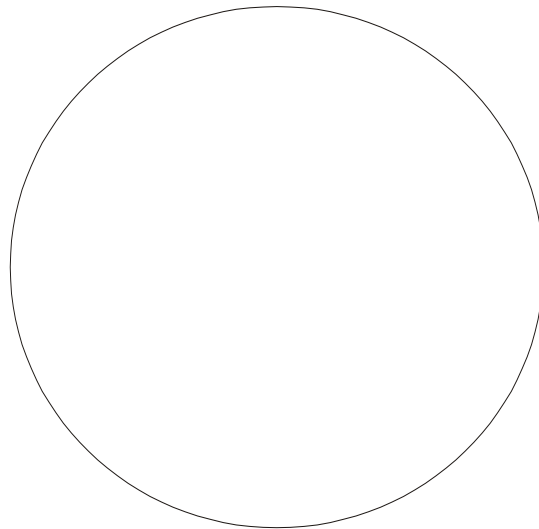
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4. Colour  $\frac{3}{6}$  of the circle:



Colour  $\frac{2}{3}$  of the circle:



If the two fractions are combined, will the answer be greater or less than 1? Explain your thinking.

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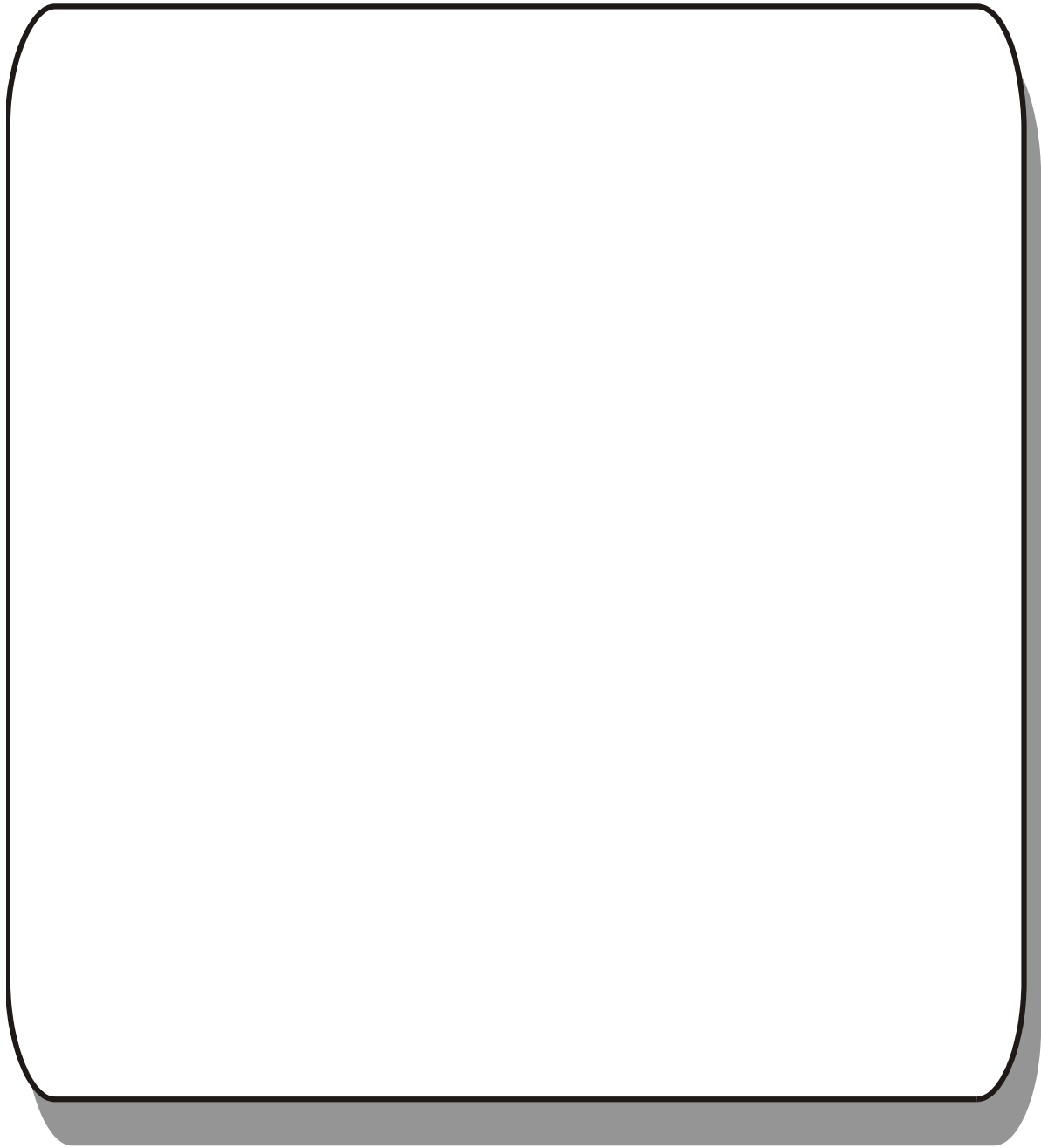
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5. Is  $1 - \frac{3}{4}$  greater than or less than  $\frac{1}{2}$ ? Use words and pictures to explain your answer.



## Patterns and Relations

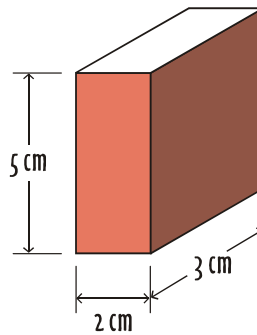
13. Solve:  $6 \times \square + 8 = 32$

- (A) 3
- (B) 4
- (C) 5
- (D) 6

14. What does  $5n$  mean?

- (A)  $5 \times n$
- (B)  $5 + n$
- (C)  $5 - n$
- (D)  $5 \div n$

15. A rectangular prism has a height of 5 cm, width of 2 cm, and length of 3 cm. If the height is doubled, what will happen to the volume?



- (A) doubled
- (B) halved
- (C) 5 more
- (D) 10 more

16. What is the missing number in this pattern?

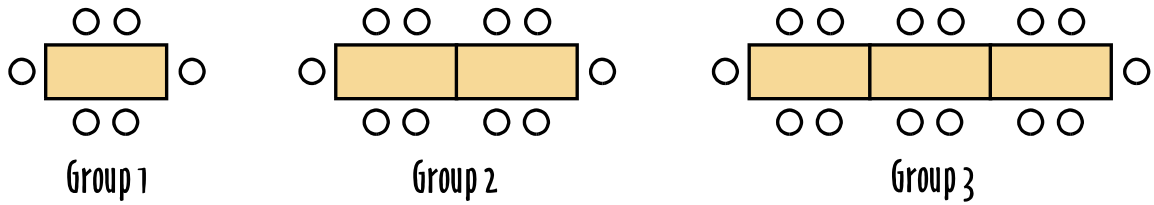
3, 8, 18, 38, \_\_\_\_, 158

- (A) 58
- (B) 78
- (C) 88
- (D) 128



A lunchroom can have tables arranged for different sizes of groups.

1(a) Draw the next table arrangement in the pattern.



1(b) Complete the T-chart to represent the pattern in Question 1.

<i>Number of Tables</i>	<i>Number of People</i>

1(c) Bobby's class has 28 students. How many tables would be needed?

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1(d) Explain your thinking.

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2(a) In our province the ratio of campers to tents is 5:3 in each provincial park. Based on this information, complete the chart.

	<i>Park A</i>	<i>Park B</i>	<i>Park C</i>	<i>Park D</i>	<i>Park E</i>
<i>Campers</i>	5	10	15	20	25
<i>Tents</i>	3	—	—	—	—

2(b) If there were 50 campers, how many tents would there be?

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2(c) How did you use ratios to figure this out?

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## ***Number Concepts***

23. Which is a prime number?
- (A) 7
  - (B) 9
  - (C) 15
  - (D) 21
24. What is the greatest common factor of 16 and 24?
- (A) 4
  - (B) 6
  - (C) 8
  - (D) 12
25. Which is the coldest temperature?
- (A)  $0^{\circ}\text{C}$
  - (B)  $-6^{\circ}\text{C}$
  - (C)  $8^{\circ}\text{C}$
  - (D)  $-8^{\circ}\text{C}$
26. There are at least 6.02 billion people in the world. Which number represents this amount?
- (A) 6 002 000
  - (B) 6 020 000
  - (C) 6 002 000 000
  - (D) 6 020 000 000

27. Which decimal means the same as  $\frac{1}{5}$ ?

- (A) 0.02
- (B) 0.20
- (C) 0.50
- (D) 1.50

28. The article, ***Hair! The Long and the Short of It***, recommends you should wash your hair twice a week. Which ratio represents the number of times you should wash your hair to the number of days in a week?

- (A) 2:5
- (B) 2:7
- (C) 5:7
- (D) 7:2

1. Twelve out of 50 people surveyed had brunette hair. The others had blonde hair.

(a) What is the ratio of brunettes to the total number of people who were surveyed?

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(b) Give the ratio of brunettes to blondes and explain how you figured this out.

Ratio: \_\_\_\_\_

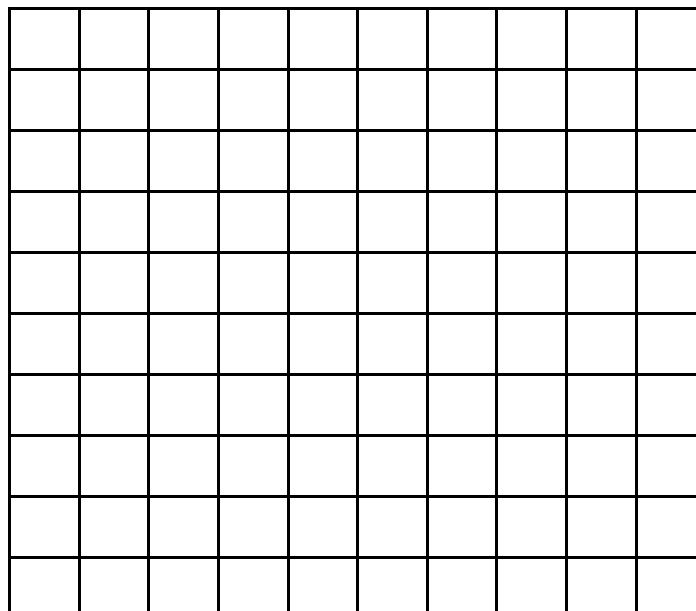
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(c) If one block represents one person, shade the diagram to represent the number of brunettes there would be out of 100 people.



(d) Based on the survey, what percentage of 100 people are brunettes?

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(e) The same survey showed 20 out of 50 people had curly hair. Your friend says this means 40% of the people in the survey had curly hair. Is your friend right? Explain your thinking.

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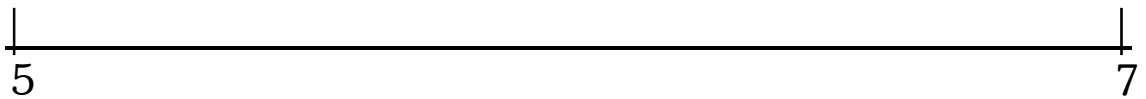
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2(a) Place these fractions and decimals on the number line between 5 and 7.

$\frac{16}{3}$     5.08     $6\frac{3}{4}$      $\frac{19}{3}$     5.80



(b) Choose one of the **fractions** and explain how you decided where to place it on the number line.

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(c) Choose one of the **decimals** and explain how you decided where to place it on the number line.

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(d) Choose one of the decimals or fractions and describe where you might see it when you are not in school. How would this fraction or decimal be useful in this situation?

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## Shape and Space

29. How many centimetres are in 2.42 metres?

- (A) 0.242
- (B) 24.2
- (C) 242
- (D) 2420

30. The height of this parallelogram is 4 cm. The base is 12 cm.  
What is the area of the shaded part?

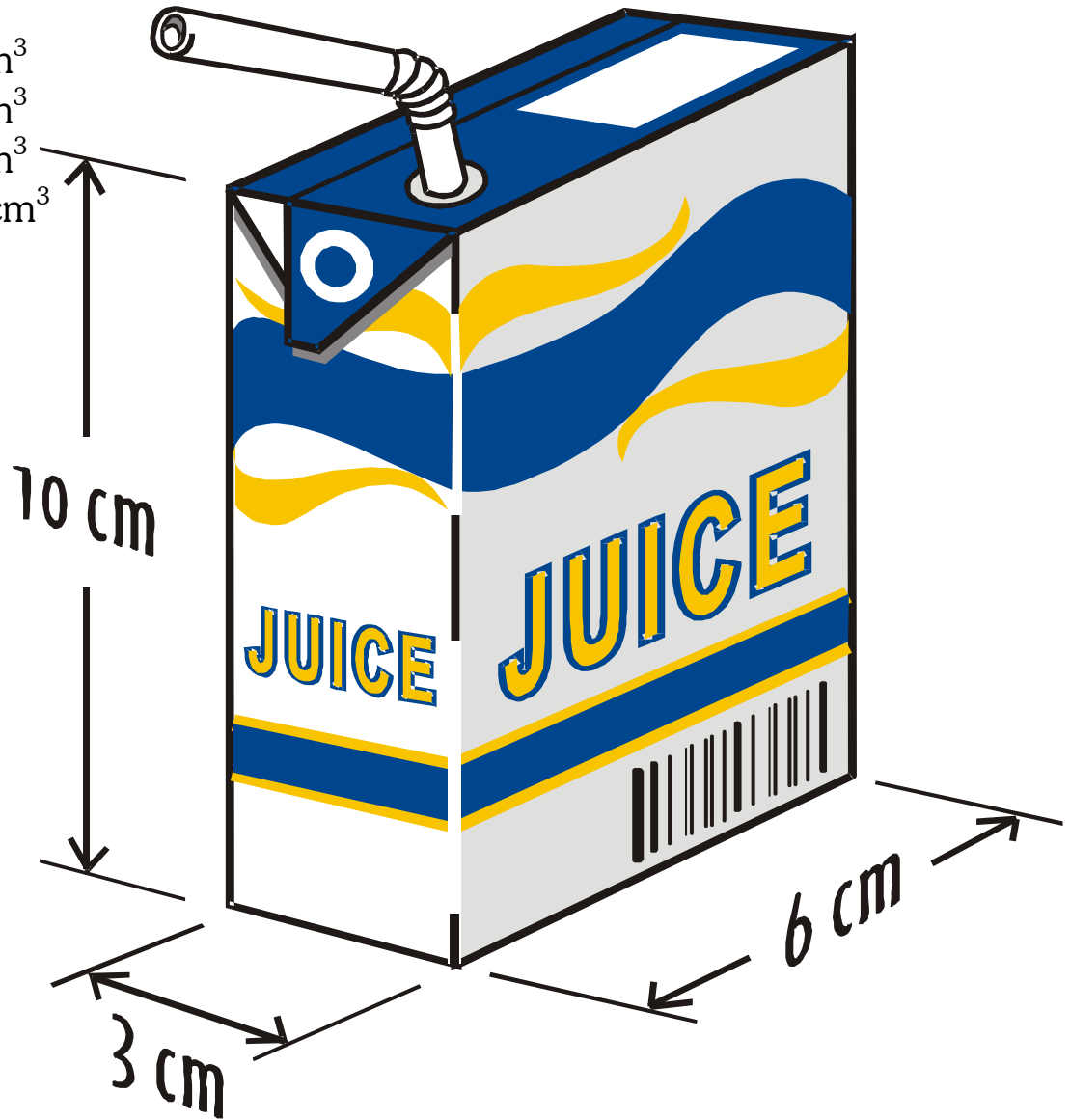


- (A)  $16 \text{ cm}^2$
- (B)  $24 \text{ cm}^2$
- (C)  $32 \text{ cm}^2$
- (D)  $48 \text{ cm}^2$



31. The dimensions of this juice box are shown.  
What is the volume of the juice box?

- (A)  $19 \text{ cm}^3$
- (B)  $60 \text{ cm}^3$
- (C)  $96 \text{ cm}^3$
- (D)  $180 \text{ cm}^3$

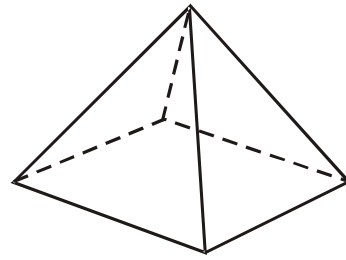


32. Triangles have 3 angles. Which three angles would you put together to form a triangle?

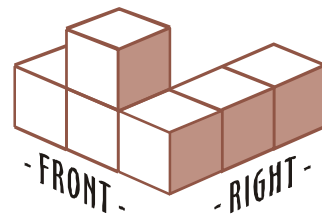
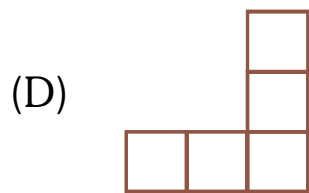
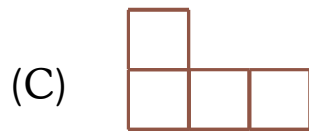
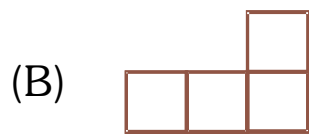
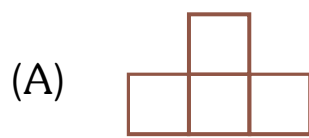
- (A)  $50^\circ$   $50^\circ$   $50^\circ$
- (B)  $60^\circ$   $50^\circ$   $70^\circ$
- (C)  $90^\circ$   $10^\circ$   $90^\circ$
- (D)  $110^\circ$   $20^\circ$   $40^\circ$

33. How many planes of symmetry does this square pyramid have?

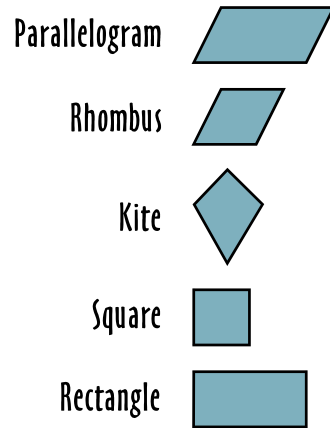
- (A) 2
- (B) 4
- (C) 5
- (D) 8



34. Which is the orthographic view from the front?



1. These are examples of quadrilaterals:



(a) Sort the shapes by the characteristics in the table. Write the names rather than draw them. They can be in more than one column.

<b>Column A</b> Opposite sides are congruent	<b>Column B</b> Four right angles	<b>Column C</b> Opposite angles are congruent

(b) Choose a shape from one column and explain why you chose to put it in this column.

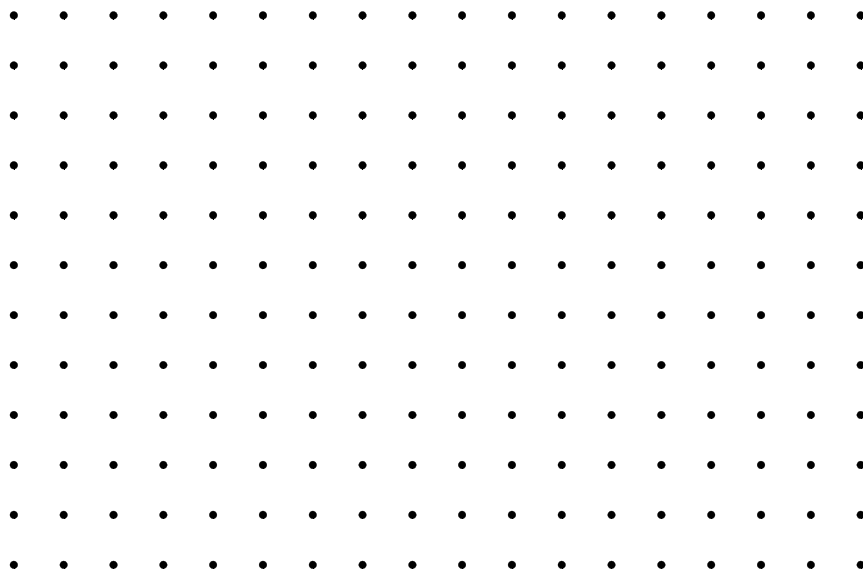
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(c) Choose a quadrilateral and draw it on the dot paper.



(d) On the same dot paper draw a quadrilateral that is similar to the first one you drew.

(e) Explain how these shapes are similar.

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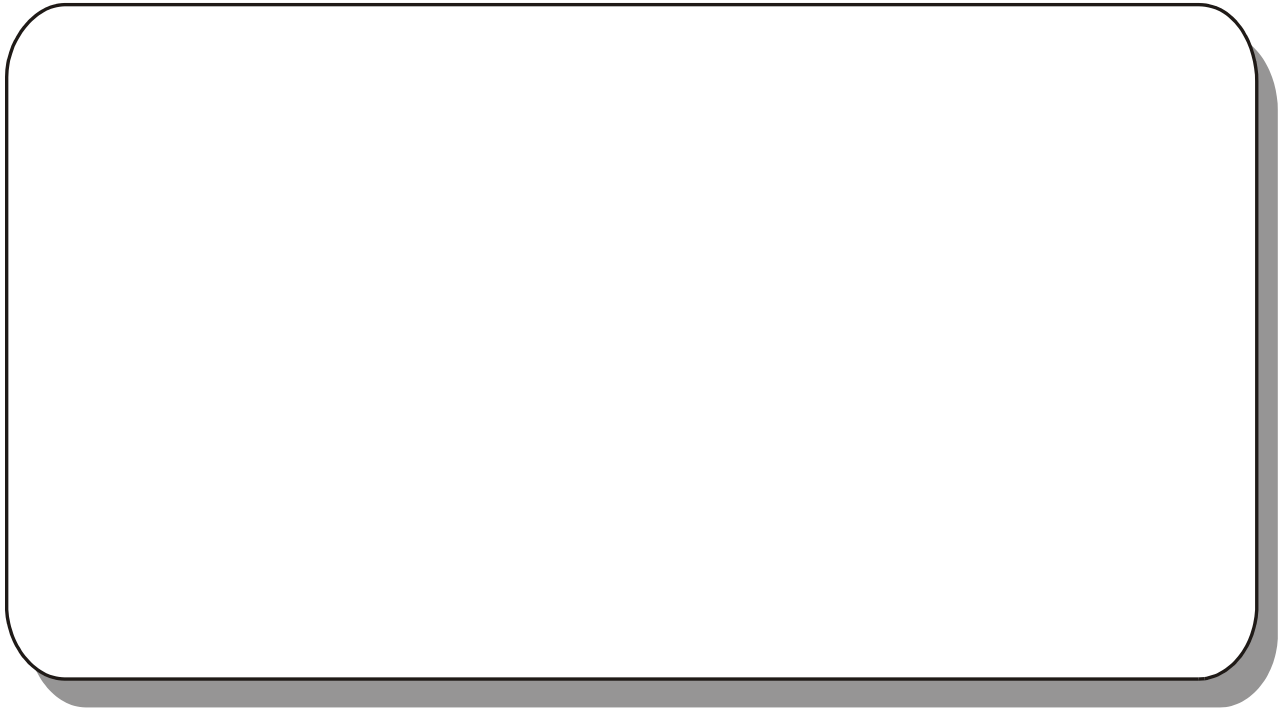
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2. Farmer Brown wants to build a dog pen that measures 24 m all the way around. He has to decide what his pen will look like.

(a) Draw 2 different pens showing the length of each side. Each dog pen must be in the shape of a rectangle and must use 24 m of fencing to go all the way around.



(b) If you were building your own dog pen, which one of the two you drew would be better for a dog? Use your knowledge of measurement and your own ideas to explain your choice.

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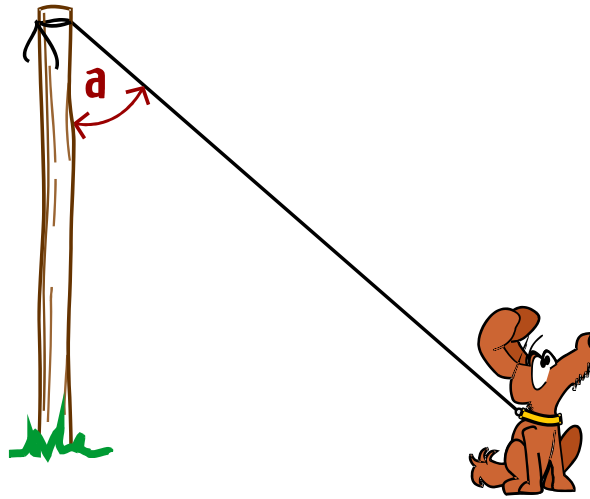
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(c) Farmer Brown tied his dog to the fencepost.



He said **angle a** was  $120^\circ$ . Was Farmer Brown correct? Explain your answer.

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## ***Data Management & Probability***

The stem and leaf graph shows the height of a class of Grade 6 students in centimetres.

12		6 6 6 7
13		1 1 3 4 5 9 9
14		0 2 3 7 8
15		0 0 1 1 3 4

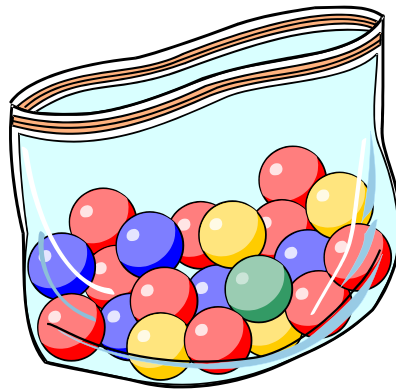
38. How many students are taller than 135 cm?
- (A) 7
  - (B) 13
  - (C) 18
  - (D) 22
39. Which height occurs most frequently in the stem and leaf graph?
- (A) 3 cm
  - (B) 6 cm
  - (C) 126 cm
  - (D) 139 cm

40. Which conclusion can you draw from the data which was collected from 5 - 10 year olds?

<b>Age</b>	5	6	7	8	9	10
<b>Hours of play each day</b>	5	4.5	4	3.5	3	2.5

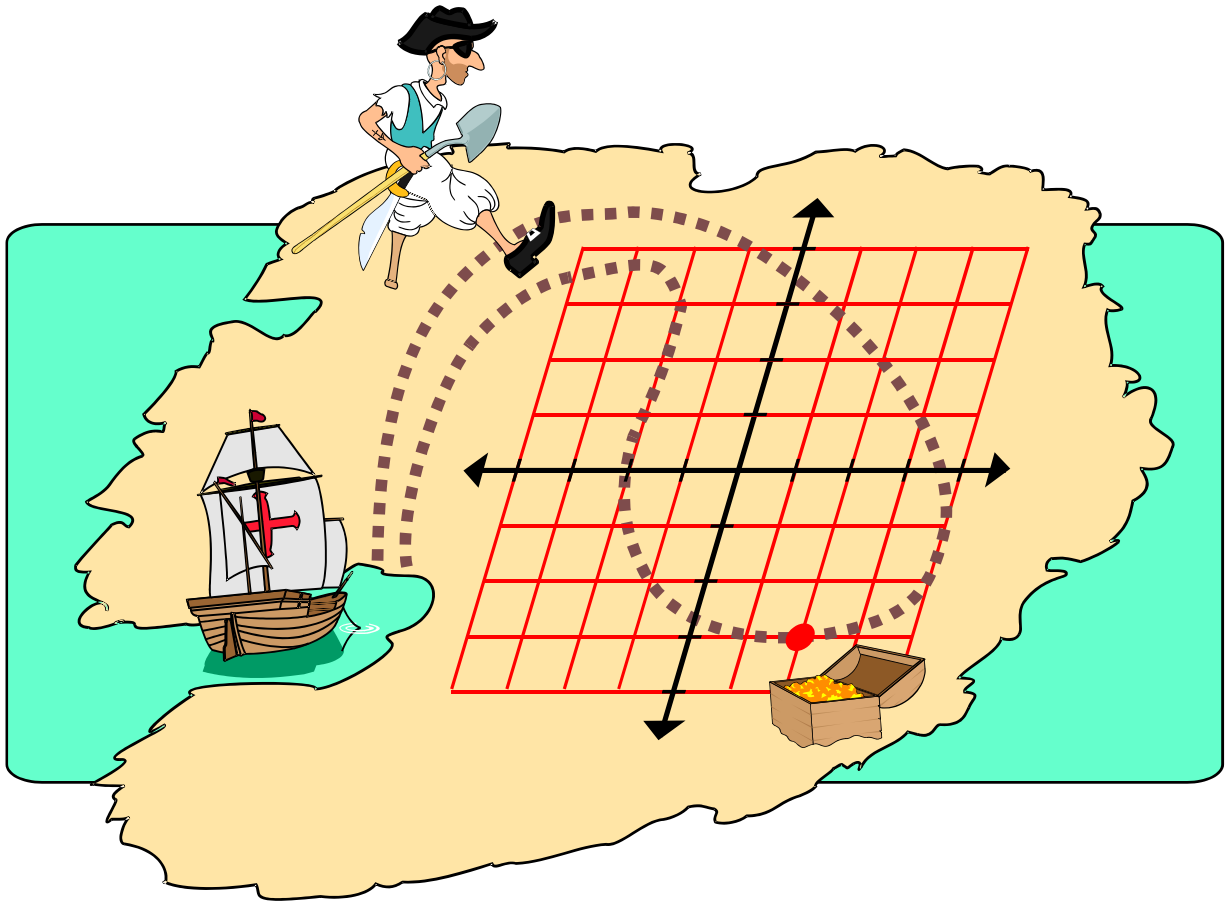
- (A) Age has nothing to do with how much children play.  
(B) Children play most of the day.  
(C) Older children play more than younger children.  
(D) The younger children are, the more they play.
41. You close your eyes and put your hand in the bag. What is the probability of choosing a yellow marble out of the bag?

- (A)  $\frac{1}{4}$   
(B)  $\frac{1}{5}$   
(C)  $\frac{4}{10}$   
(D)  $\frac{5}{10}$





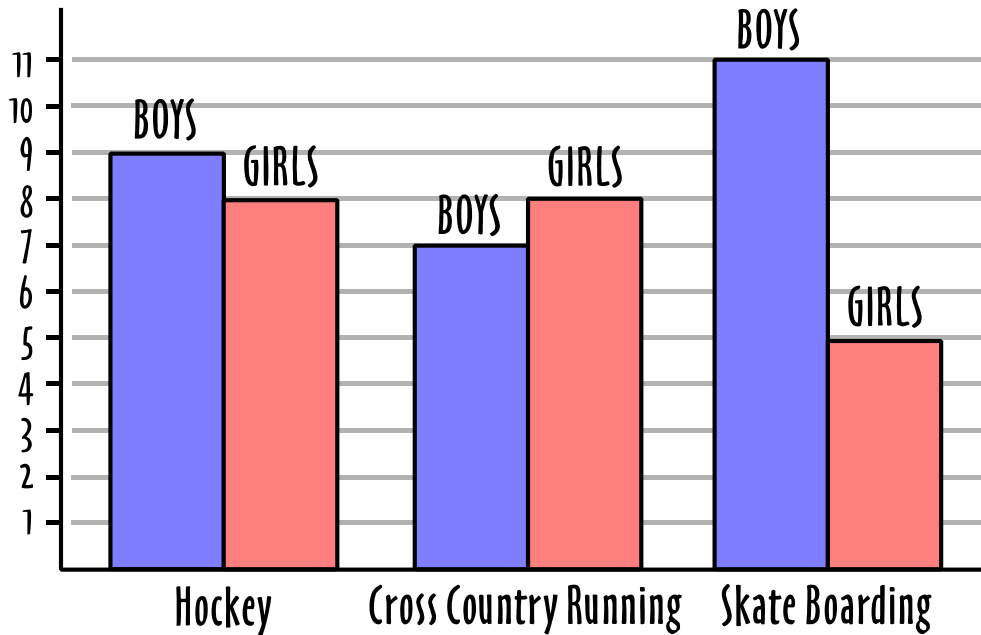
1. Pirate Pete needs to dig up his treasure and move it. His treasure was buried at the coordinates  $(-1, 4)$ . Mark an X on this spot for Pirate Pete.



2. Now that Pirate Pete has his treasure he will bury it at a new site which is marked by a red dot. What are the coordinates of the new site?

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## After School Activities



At Dundee School all Grade 6 students take part in after school activities. The graph shows how many students participate in each activity.

1. What is the total number of girls who participate in these activities?

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2. How do you know?

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3. What is the most popular sport for boys and girls combined?

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4. How do you know?

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5. Three of the male skateboarders also take part in cross-country running. If no one else takes part in two activities, what is the total number of Grade 6 students?

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