Assessment Test for Singapore Primary Mathematics 5B

This test covers material taught in Primary Mathematics 5B
(http://www.singaporemath.com/)

1. Consider the number 12.406

   (a) What is the value of the digit in the tenths place? _____ [1]

   (b) What digit is in the hundredths place? _____ [1]

   (c) What is difference between this number and 12.4? _____ [1]

   (d) Fill in the blanks with a whole number or a fraction. [1]

   12.406 = 1 x _____ + 2 x _____ + 4 x _____ + 6 x _____

2. Write >, <, or = in each ◯

   (a) 0.205 ◯ $\frac{25}{1000}$ (b) 4.10 ◯ 4.1 [2]

   (c) 3.1 – 0.46 ◯ 2 + 0.06 (d) 0.89 x 7 ◯ 7 [2]

   (e) 17.4 ÷ 5 ◯ $\frac{3}{10}$ (f) 3 – 0.12 ◯ $2\frac{8}{9}$ [2]

3. Multiply or divide. Use mental calculation.

   (a) 0.4 x 100 = _____ (b) 0.008 x 1,000 = _____ [2]

   (c) 56.8 ÷ 100 = _____ (d) 0.007 ÷ 0.01 = _____ [2]

   (e) 400 x 0.8 = _____ (f) 120 ÷ 0.02 = _____ [2]

4. Find the equivalent measures.

(a) 0.04 m = _____ cm (b) 6.25 lb = _____ lb _____ oz [2]

(c) 35 ml = _____ liters (d) 0.75 ft = _____ in. [2]

5. Multiply or divide. Give an estimate first.

(a) 17.02 x 43 (b) 8.1 x 2.19 [4]

Estimate: _____ Estimate: _____

Answer: _____ Answer: _____

(c) 11.25 ÷ 18 (d) 89.96 ÷ 0.04 [4]

Estimate: _____ Estimate: _____

Answer: _____ Answer: _____

6. Find the following correct to 2 decimal places

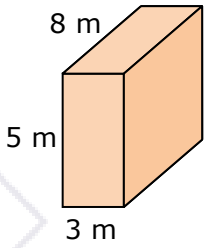
(a) $49.95 \div 0.07$ (b) $89.5 \div 31$ [4]

7. The total cost of 4 lb of fish and 3 lb of meat is \$42.40. If 1 lb of fish costs \$3.25 more than 1 lb of meat, what is the cost of 1 lb of meat? [3]

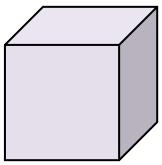
8. The length of one side of a cube is 1 yd. What is its volume in cubic feet? [2]

9. Find the volume the rectangular prism and cube. [2]

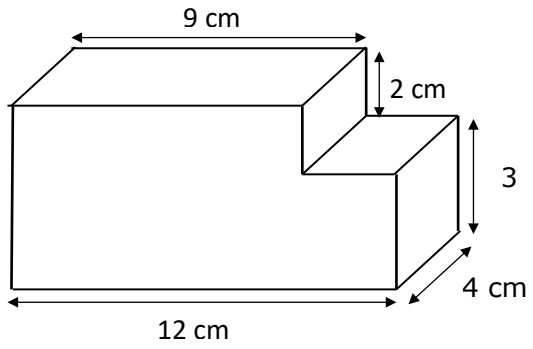
(a)



(b)

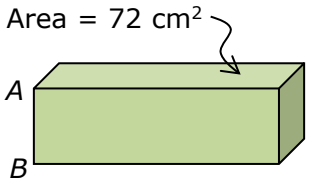


10. The following figure is made from centimeter cubes. Find the volume. [3]



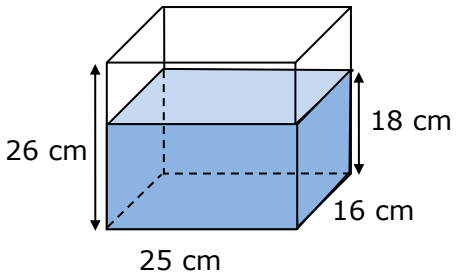
11. The area of one side of a rectangular prism is 72 cm^2, and its volume is 360 cm^3. What is the length of the unknown edge? [2]

AB =



Volume = 360 cm^3

12. A rectangular tank measuring 25 cm by 16 cm by 26 cm is to be filled with water to a depth of 18 cm. How much more water is needed to fill the tank? Give your answer in liters. [3]
(1 liter = 1000 cm^3)



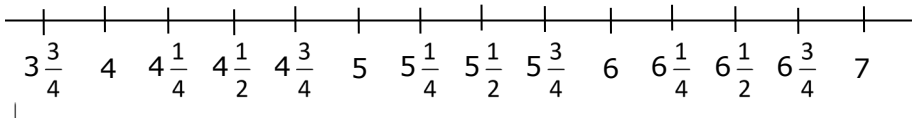
13.	How many 4-cm cubes can fit into a rectangular box 1 m long, 0.4 m wide, and 0.6 m high?	[3]
14.	A rectangular container 8 cm long and 9 cm wide was filled with water to a depth of 6 cm. When 12 marbles of equal size were added to the container, the depth of the water became 7.5 cm. Find the volume of one marble.	[3]
15.	Find the average of 21.4, 18.2, and 65.7.	[2]
16.	Fill in the blank: The average of 42, 36, _____ , and 25 is 30.	[2]
17.	The average weight of 3 packages is 2 kg 750 g. The average weight of 2 of them is 3 kg 200 g. Find the weight of the third package. Give your answer in kg and g.	[2]

18. Valerie recorded the weights of some mature dogs of a certain small breed that were brought to the veterinarian clinic to the nearest quarter of a pound.

Weight in pounds

5	$5\frac{3}{4}$	$3\frac{3}{4}$	$5\frac{1}{2}$	5
6	$6\frac{1}{4}$	$4\frac{1}{2}$	$5\frac{3}{4}$	$5\frac{1}{2}$
$5\frac{1}{4}$	$6\frac{1}{2}$	6	$4\frac{3}{4}$	$5\frac{1}{2}$

(a) Create a line plot from the data. [2]

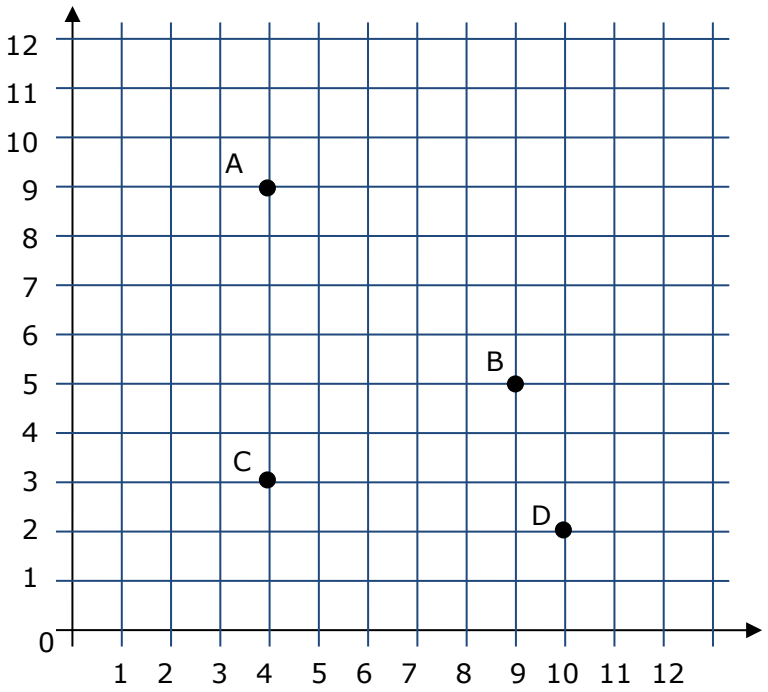


(b) What is the difference between the heaviest and lightest weight recorded? [1]

(c) What fraction of the dogs weigh the most common weight recorded? [1]

(d) What is the average of the data? [2]

19.



(a) Write the ordered pair for each of the points. [2]

A: _____ B: _____

C: _____ D: _____

(b) Draw a point at (6, 10). [1]

(c) Which coordinates, the first or the second, of the ordered pairs do you subtract to find the distance between A and C? [1]

20. A rectangle has coordinates (4, 3), (4, 10), (10, 10), and (10, 3) on a grid with 1 centimeter squares. What is area of the rectangle? [2]

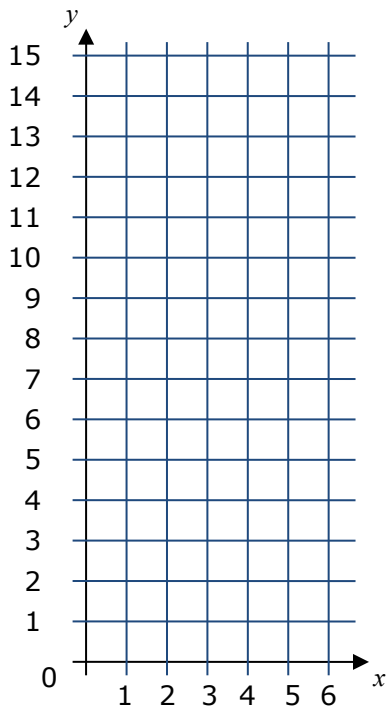
21. (a) In Sequence A, each number is obtained by adding 2 to the previous number. Complete the table. [1]

Term (x)	1	2	3	4	5
Number (y)	2	4			
(x, y)	(1, 2)	(2, 4)			

(a) In Sequence B, each number is obtained by adding 3 to the previous number. Complete the table. [1]

Term (x)	1	2	3	4	5
Number (y)	3	6			
(x, y)	(1, 3)	(2, 6)			

(b) Plot both sets of ordered pairs on the graph at the right and connect the points in each set. Describe what happens to the distance between the two line as x increases. [3]

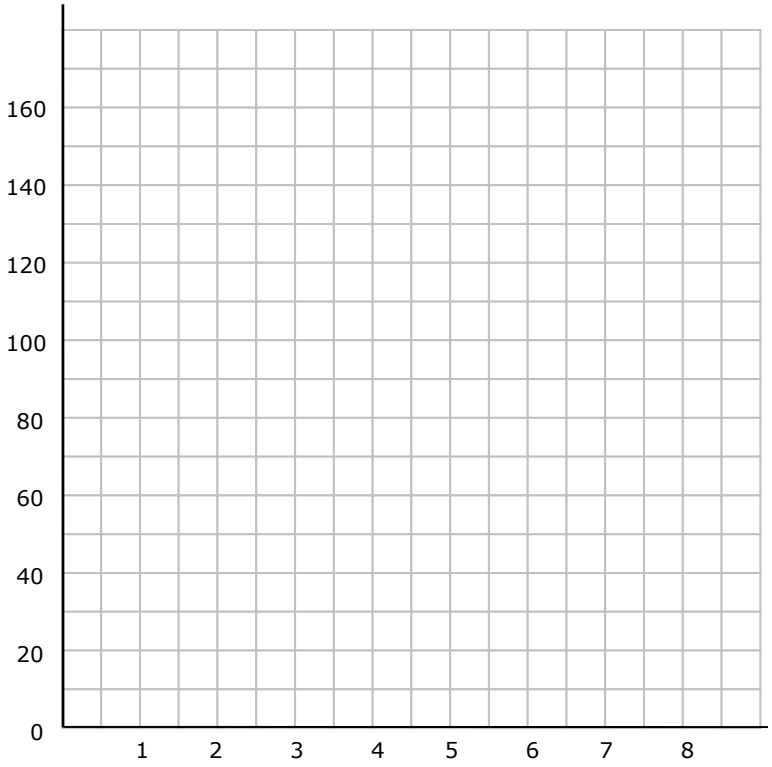


22. Water is flowing from a tap in to a tank. Every minute 25 gallons of water is added to the tank.

(a) Complete this table for the amount of water in the tank. [2]

Time (min)	1	2	3	4	5	6
Amount (gal)	25					

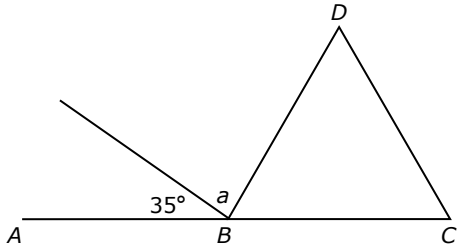
(b) Plot these points in a line graph. [2]



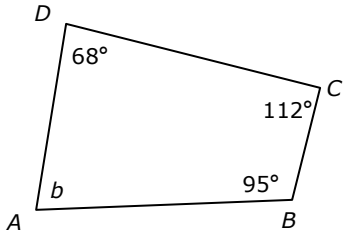
(c) Use the graph to estimate to the nearest tenth of a minute how long it takes until there is 120 gallons in the tank _____ [1]

23. The following figures are not drawn to scale. Find the unknown marked angle in each.

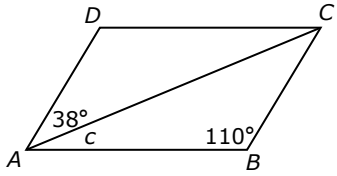
(a) ABC is a straight line. BCD is an equilateral triangle. [2]



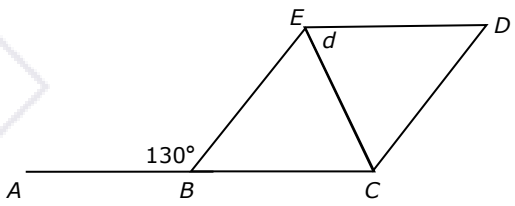
(b) ABCD is a quadrilateral. [2]



(c) ABCD is a parallelogram. [2]



(d) ABC is a straight line. BCDE is a rhombus. [2]



24. Express each as a percentage.

(a) 0.47 [1]

(b) $\frac{6}{15}$ [1]

(c) 215 out of 500 [1]

25. Express as a decimal and as a fraction in its simplest form. [2]

85% Decimal: _____ Fraction: _____

26. John had $75. He spent $15 on a book. What percentage of his money does he have left? [3]

27. The normal price of a camera was $76. At a sale it was sold at a discount of 15%. What was the selling price of the camera? [3]

Answer Key

1. (a) 0.4
   (b) 0
   (c) 0.006
   (d) 10; 1; $\frac{1}{10}$; $\frac{1}{1{,}000}$

2. (a) > (b) =
   (c) > (d) <
   (e) > (f) <

3. (a) 40 (b) 8
   (c) 0.568 (d) 0.7
   (e) 320 (f) 6,000

4. (a) 4 cm (b) 6 lb 4 oz
   (c) 0.035 L (d) 9 in.

5. (a) 800; 731.86
   (b) 16; 17.739
   (c) 0.5; 0.625
   (d) 2,000; 2,249

6. (a) 713.57 (b) 2.89

7. $4.20

8. 27 ft^3

9. (a) 120 m^3 (b) 3,375 cm^3

10. 216 cm^3

11. 5 cm

12. 3.2 liters

13. 3750 4-cm cubes

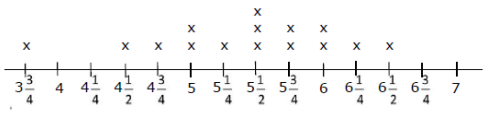
14. 9 cm^3

15. 35.1

16. 17

17. 1 kg 850 g

18. (a)



   (b) $2\frac{3}{4}$ lb
   (c) $\frac{1}{5}$
   (d) $5\frac{2}{5}$ lb

19. (a) A: (4, 9) B: (9, 5)
    C: (4, 3) D: (10, 2)
    (b) Check placement of point.
    (c) second

20. 42 cm^2

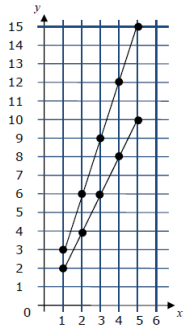
21. (a)

x	3	4	5
y	6	8	10
(x, y)	(3, 6)	(4, 8)	(5, 10)

    (b)

x	3	4	5
y	9	12	15
(x, y)	(3, 9)	(4, 12)	(5, 15)

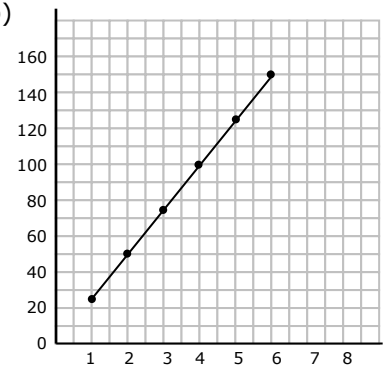
    (c) The distance between the points increases by 1 for each increase of 1 in x.



22. (a)

Time (min)	1	2	3	4	5	6
Amount (gal)	25	50	75	100	125	150

    (b)



    (c) 4.8 (accept 4.7 or 4.9)

23. (a) 85°
    (b) 85°
    (c) 32°
    (d) 65°

24. (a) 47%
    (b) 40%
    (c) 43%

25. 0.85; $\frac{17}{20}$

26. 80%

27. $64.60