

Placement Test for Singapore Primary Mathematics 6B

This test covers material from Primary Mathematics 6B

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Starred problems (*) are for topics only in the US edition.

*1. Find the value of each of the following in its simplest form.

(a) $\frac{7}{8} + 1\frac{1}{2}$

(b) $\frac{1}{2} \times \frac{3}{5} + \frac{1}{4} \div \frac{1}{12}$

[2]

(c) $5\frac{1}{4} \times 2\frac{6}{7} \div \frac{3}{4}$

(d) $\frac{2}{3} \times \left(\frac{1}{4} - \frac{1}{12}\right) \div \frac{1}{2}$

[2]

*2. In a jar filled with beads, $\frac{2}{5}$ of the beads are blue, $\frac{1}{3}$ of them are red, and the rest are green and yellow. The total number of red, green, and yellow beads is 126. There are $\frac{3}{4}$ as many green beads as yellow beads. How many yellow beads are there?

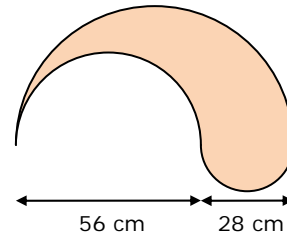
[3]

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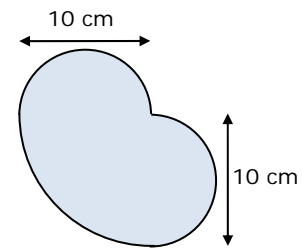
3. The figure is made using three half circles. Find its area and perimeter.
 (Use $\frac{22}{7}$ for π .)

[3]



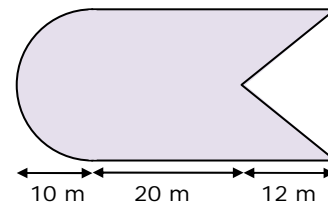
4. The figure is made up of two semicircles and a quarter circle. Find its area and perimeter.
 (Use 3.14 for π .)

[3]



5. The figure shows a semicircle and a rectangle from which a triangle has been cut. Find the area of the figure.
 (Use 3.14 for π .)

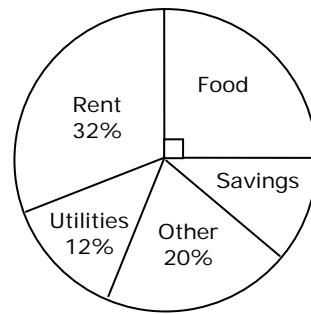
[2]



6. Amy is riding a bicycle with tires that have a radius of 28 cm. If the tires have made 1,250 revolutions since she started, how far has she traveled? Give your answer in km. [3]
 (Use $\frac{22}{7}$ for π .)

7. This pie chart represents the use of monthly income.

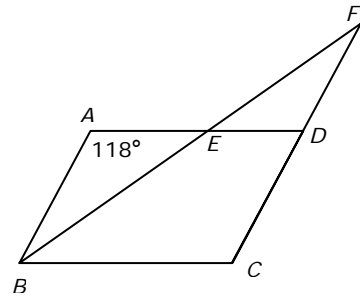
(a) What percentage of the monthly income is saved? [2]



(b) If \$264 is saved, how much is the monthly income? [2]

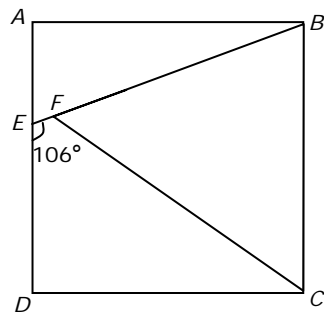
8. An empty rectangular tank, 60 cm long by 50 cm wide, contains 3 metal cubes of edge 10 cm. The tank is being filled with water flowing from a tap at a rate of 10 liters per minute. If it takes 6 minutes to fill up the tank, find the height of the tank. [4]

9. The figure is not drawn to scale.
 ABCD is a parallelogram. BEF and CDF are
 straight lines. $BC = CF$. $\angle BAE = 118^\circ$. Find
 $\angle ABE$.



[4]

10. The figure is not drawn to scale.
 ABCD is a square. EFB is a straight line. BF
 $= BC$. $\angle DEF = 106^\circ$. Find $\angle FCB$.



[4]

11. Peter and Paul each had an equal amount of money. Each day Peter spent \$36 and Paul spent \$48. When Paul used up all his money, Peter still had \$240 left. How much money did each of them have at first?

[4]

12. A car left Town A at 10:00 a.m. and travelled towards Town B at the average speed of 70 km/h. At the same time a truck left Town B and travelled towards Town A over the same road at an average speed of 50 km/h. If the distance between Town A and Town B is 420 km, at what time would the car and the truck pass each other? [4]

13. Last month David and Mary saved some money in a ratio of 3 : 5. This month they saved an additional \$154 together, and David now has three times as much money as he had last month, while Mary has two times as much as she had last month. How much money did they save last month? [4]

14. Mr. Williams had three television sets which were of the same cost price. He sold one at cost price, one at 20% more than cost price, and one at 15% more than cost price. If he received a total of \$670, how much was his profit? [4]

Answer Key

- *1. (a) $2\frac{3}{8}$ (b) $3\frac{3}{10}$
(c) 20 (d) $\frac{2}{9}$
- *2. 32
3. area = 1848 cm^2 , perimeter = 264 cm
4. area = 157 cm^2 , perimeter = 47.1 cm
5. area = 677 m^2
6. 2.2 km
7. (a) 11% (b) \$2400
8. 21 cm
9. 31°
10. 53°
11. \$960
12. 1:30 p.m.
13. \$112
14. \$70