

Name \_\_\_\_\_

## Math 6B Final :D

1. Find the values of the following:

(a)  $\left(\frac{5}{6} - \frac{2}{3}\right) \div 4$

(b)  $\frac{1}{9} \div \left(\frac{2}{3} + \frac{1}{4}\right)$

(c)  $\frac{5}{7} + \frac{3}{8} \div \frac{1}{4}$

(d)  $\frac{3}{5} \times \frac{5}{6} \div \frac{1}{2}$

(e)  $28 + 15 \div 5 \times 3$

(f)  $\frac{5}{9} \div \frac{2}{3}$

(g)  $2\frac{1}{4} - 1\frac{5}{8}$

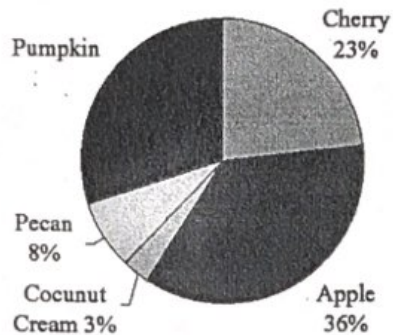
(h)  $\frac{1}{5} \div \frac{2}{3} \times \frac{3}{4}$

2. If  $\frac{1}{4}$  of a number is 45, what is  $\frac{1}{2}$  of the number?

3. Express 0.045 as a percentage.

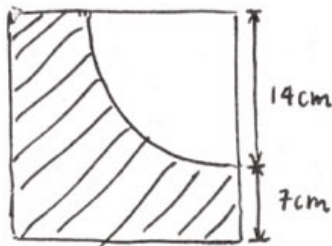
4. Find the value of 25% of \$10.

5. This pie chart shows the pie preferences of a group of 100 students. How many people like pumpkin pie?

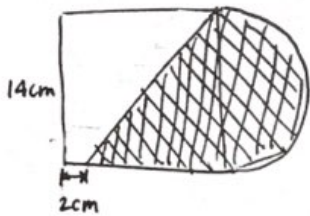


6. Jerome, Joe, and Peter shared some stamps in the ratio of 2:3:5. Peter received 60 more stamps than Jerome. Find the total number of stamps shared by the three boys.
7. Alicia spent 15% of her money on a music box. If the music box cost \$60, how much did she have left?
8. Jordan took 3 hours to travel from Town X to Town Y. His average speed was 50 km per hour. On his way back from Town Y to Town X, he took 1 hour less. What is the total distance from Town X to Town Y? What is his average speed for the return trip? What is the total hours he used for his entire trip? What is the total distance for his entire trip? What is his average speed for the entire trip?

9. A quarter circle of radius 14 cm was cut off from a square as shown. Find the perimeter of the remaining figure. What is the area of the remaining figure? (Use  $\pi = \frac{22}{7}$ )

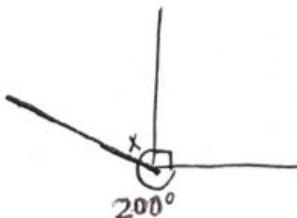


10. The figure is made up of a square and a semicircle. What is the diameter of the semicircle? What is the radius? What is the area of the shaded triangle? What is the area of the shaded semicircle? Find the total shaded area in the figure. (Use  $\pi = \frac{22}{7}$ )

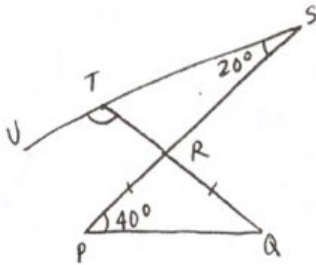


11. A rectangular tank, measuring 60 cm by 35 cm by 36 cm, is filled with water to a depth of 14 cm. When a stone is placed in the water, the water level rises to  $\frac{2}{3}$  of the height of the tank. What is the volume of water before the stone was placed in the tank? What is the height of water after the stone was placed in the tank? Find the volume of the stone.

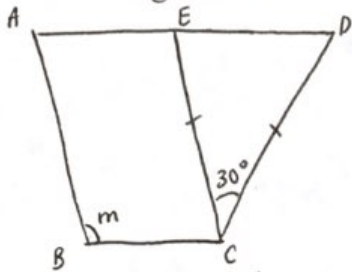
12. The figure below is not drawn to scale. Find  $\angle x$ .



13. The figure below is not drawn to scale.  $RP = RQ$ .  $PRS$ ,  $QRT$ , and  $STU$  are straight lines. Find  $\angle UTR$ .



14. The figure below is not drawn to scale.  $CD = CE$ .  $ABCE$  is a parallelogram.  $AED$  is a straight line. Find  $\angle m$ .



15. John withdrew  $\frac{1}{2}$  of his savings from the bank. He used 80% of the money to buy a computer. If the computer cost \$2400, how much savings did he have in the bank?