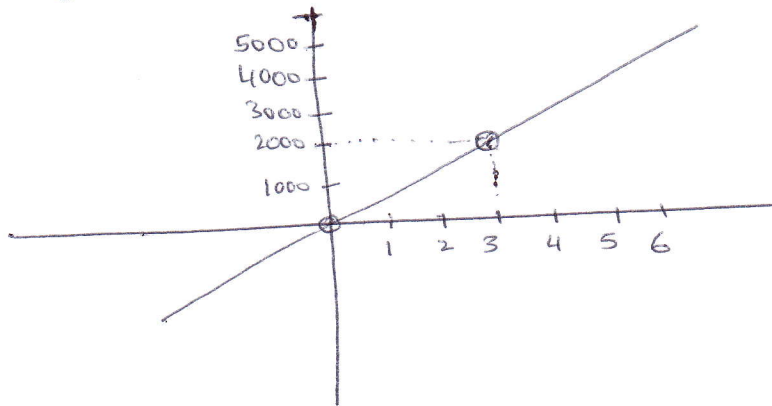


Q1 In the following graph the x -axis is number of trucks that post-office employs and y -axis is number of letters it can deliver. Find out how many letters can 250 trucks deliver



Q2 If the price of a Los Altos home in 2010 was \$1.5 million, and the home prices are expected to crash 10% each year in 2011 and 2012 and then rise 15% in 2013, what is the price of the home expected to be in 2013?

Q3 If a sales person gets a base salary of \$100 K and 2% commission on all sales he does, write an equation that relates his annual total salary to the annual sales he does.

Q4 Calculate the approximate value of $\sqrt{7}$

Q5 If you are designing a home and the dining room is 12 ft wide and 15 ft long.

What is the width of a dining table that can be placed in the room, if you need $2\frac{1}{2}$ feet of walking space on either side of the dining table?

Q6 A rectangle has length that is twice its width. How much can the length be if the perimeter of the rectangle has to be no greater than 100 cm?

Q7 Calculate the following-

$$\frac{7 \times 10^5}{0.03 \times 10^3}$$

Q8 Which of the following are irrational numbers?

(a) $\sqrt{2}$

(b) π

(c) $\sqrt{\pi}$

(d) $5.\overline{56}$

(f) $\frac{50}{9}$

Q9 Are the following terminating decimals?

(a) $\frac{50}{9}$

(b) π

(c) $\sqrt{2}$

Q10 Solve the following

(a) $\frac{1 - \frac{1}{3}}{2^3}$

(b) $(5^2)^3$

(c) $25^{\frac{1}{2}}$

(d) $1000^{\frac{1}{3}}$

(e) $(1000^{\frac{1}{3}})^3$

(f) $\frac{100^5}{10^{-2}}$

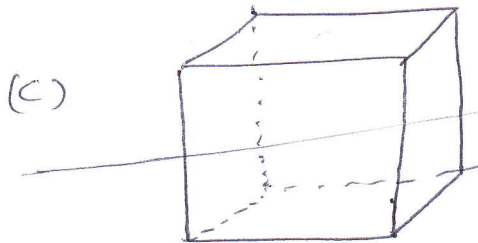
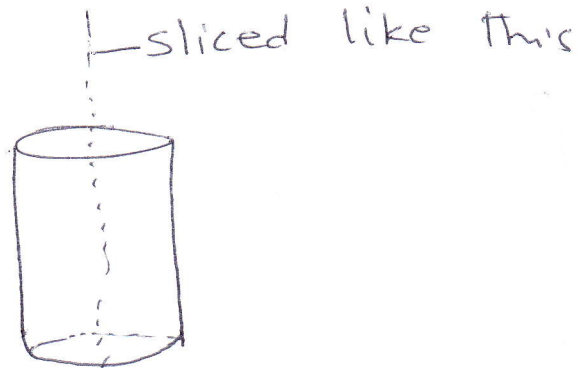
(g) $10^5 + 10^7$

(h) $10^5 \times 10^2$

Q11 What 'Shape' do you get if ~~the~~ you slice the following objects into half as shown (Shape of the face obtained after cutting)

(a) a ball cut into half

(b) a cylinder

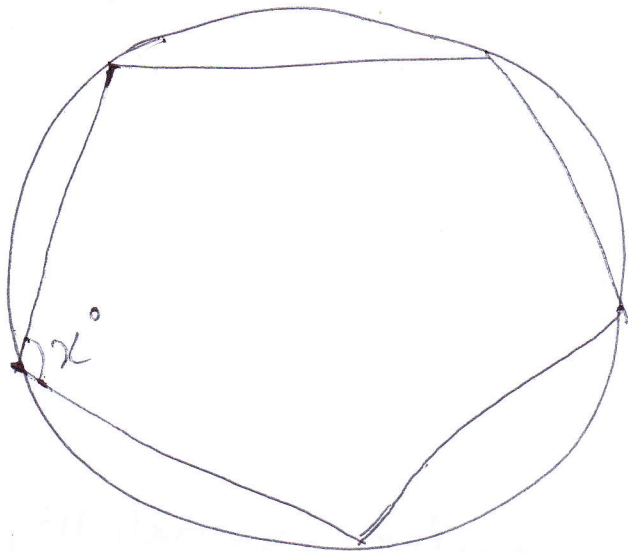


Sliced like this.

Q12 (a) What is a supplementary angle?

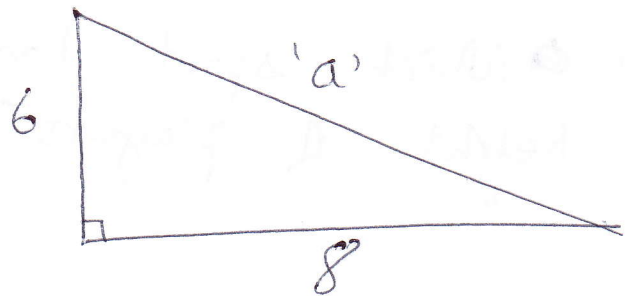
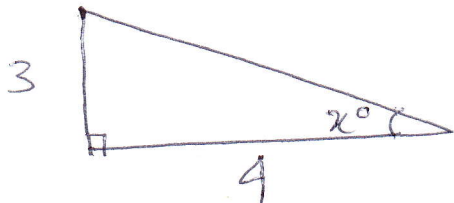
(b) What is a complementary angle?

Q13 find the angle x as shown



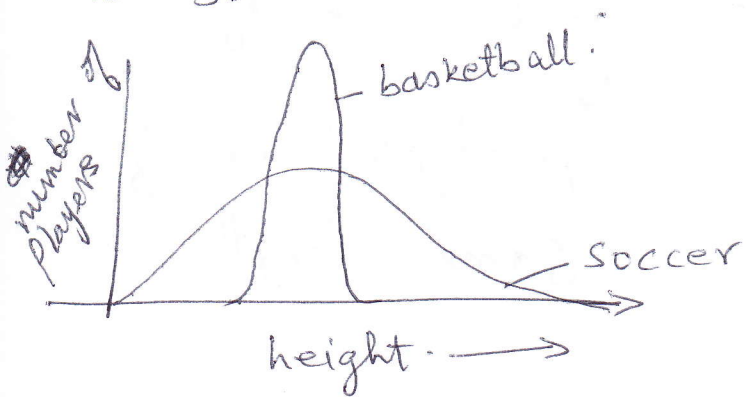
each side of
the
pentagon is of
same length.

Q14 find 'a'



Find $\tan x^\circ$

8
15 ~~What which~~ of the following shows heights of basketball and soccer players in a school.



(a) Which sport has greater variability in the heights of the players?

(b) Which sport has greater 'average' height of players?

Q 16

A coin was tossed 200 times and it resulted in 25 heads and 175 tails. What do you think is the probability of a head in this coin's toss the 201st time?

Q 17 ~~If the probability~~ If 40% of blood donors have a type A blood, what is the probability that it will take at least 4 donors to find one with a type A blood?

Q18 You have 2 dice. And you roll both at once. What is the probability of getting "2" sixes in the rolling of both dice together?

Q19 If ~~you toss a coin~~ ~~you roll a dice~~ 1200 times, what is the expected number of "Sixes" you will get in total?