A T I K A S C H O O L . C O M

Form 1	Term 3	121 A - Mathematics	02-Okt-16	Weekly Ambush

ADM…..… NAME …… CLASS …….. TIME: 1 *hr*

INSTRUCTIONS:

1. Write your **name, class and ADM number** in the spaces provided above.
2. Answer all the questions provided in this **question paper**
3. All workings must be **clearly shown**
4. Any acts of **cheating** will render your examinations nullified
5. Sign and write the date of the examination in the spaces provided below
6. This exam has **four** printed pages. Please confirm.

Invigilator's Name	Date Issued	Date Returned	Date Revised	Student's signature
TEACHER'S COMMENT				

For examiner's use only

~~Question~~/~~Section~~/Page	1	2	3	4	Total
Max. Score	4	8	9	9	30
Candidate's Score					

Questions

1.

a. If E = $\frac{1}{2}MV^2$, find M when E = 30 and V = 2 **[2mks]**

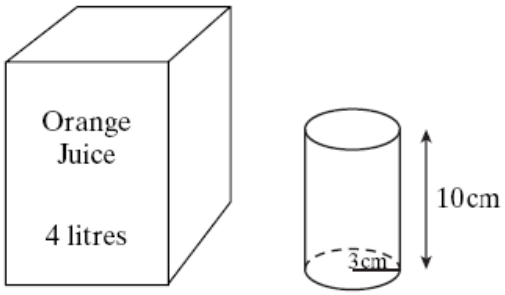
b. Evaluate the expression $\frac{x^2+y^2}{y+2}$ if $x = 2$ *and* $y = 1$ **[2mks]**

2. The length of an arc of a circle is 62.8 CM. find the radius of the circle if the arc subtends an angle of 144^0 at the centre [$\pi = 3.142$]. **[3mks]**

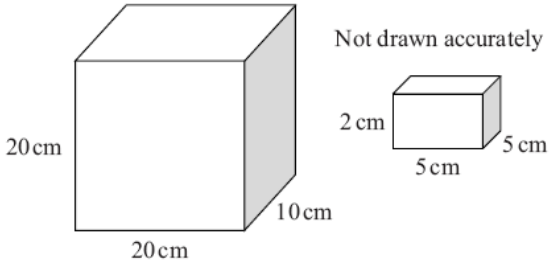
3. Twenty five machines working at a rate of 9 hours per day can complete a job in 16 days. A contractor intends to complete the job in 10 days using similar machines working at a rate of 12 hours per day. Find the number of machines the contractor requires to complete the job **[2mks]**

4. Evaluate $\frac{-8\div2+12\times9-4\times6}{56\div7\times2}$ **[3mks]**

5. A large carton contains 4 litres of orange juice. Cylindrical glasses of height 10 cm and radius 3 cm are to be filled from the carton. How many glasses can be filled? **[4mks]**
$[\pi = 3.142]$

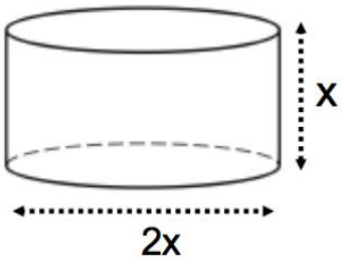


6. The diagram shows two boxes that are cuboids. The larger box measures 20cm by 10cm by 20cm. It is partly filled with 70 smaller boxes each measuring 5cm by 5cm by 2cm. The smaller boxes are packed so that there are no gaps between them. How many **more** smaller boxes could be fitted into the larger box? **[3mks]**



7. Simplify $6y - (y - 4y)$ **[2mks]**

8. The cylinder below has a surface area of $400\pi\ cm^2$. Calculate x **[3mks]**



9. Solve the linear equations below using elimination method:
   a. $x + y = 7$ **[3mks]**
      $3x + y = 15$

   b. $5m + 2n = 19$ **[3mks]**
      $3m - 4n = 1$