

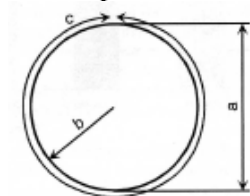
MT test December 2014

I. Read this mathematical equation and fill in the blanks with the correct words (10 points).

$$\{(x+y)^3 - \sqrt{a}\} : x^3 = \frac{2}{3} + x^2$$

Open braces, x plus y in (1) _____ to the (2) _____ of three minus the square (3) _____ of a; close braces. All this (4) _____ by x (5) _____ is equal to two (6) _____ plus x (7) _____.

II. Complete the definition on the basis of this drawing:

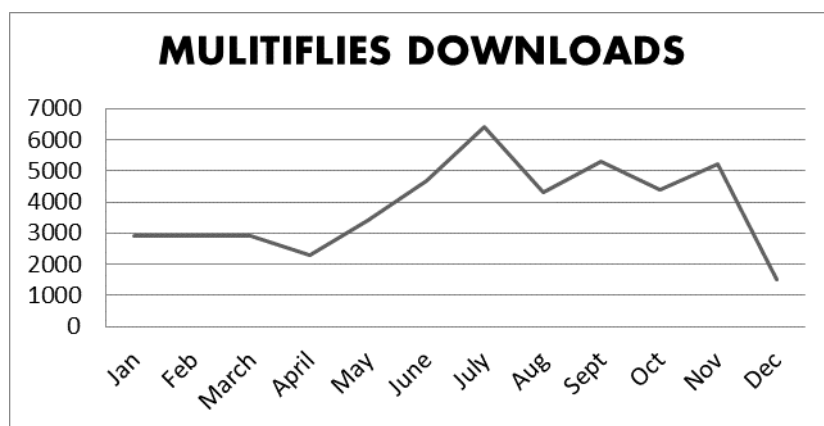


The mathematical constant **pi** (π) represents the ratio of a circle's (8) _____ (c) to its (9) _____ (a). The third dimension in a circle is (10) _____ (b).

TRANSFER THE WORDS TO THE FOLLOWING TABLE:

1	2	3	4	5
6	7	8	9	10

II. Study the graph and complete the description with the expressions given below. There are three extra expressions which you do not need to use. Put your answers in the table below (6 points).



- A. a rapid decrease
- B. fluctuated considerably
- C. levelled off
- D. stood at
- E. increased dramatically
- F. a slight drop
- G. a gradual rise
- H. fell suddenly
- I. reached a peak

The graph shows the number of downloads of The MultiFlies, a free children's game app that teaches the multiplication table, over the last year.

In January, the number of downloads (1) _____ about 3,000 and remained stable over the next two months. This trend was followed by (2) _____ between March and April, when the game was downloaded a little over 2,000 times. In April, the number of downloads started to grow steadily and (3) _____ of over 6,000 in July. In the following month, the number of downloads (4) _____ to a little over 4,000. Between August and November the figure (5) _____. In November, a new game app was launched by The MultiFlies producer's main competitor, which caused (6) _____ in the number of downloads at the end of the year.

1	2	3	4	5	6