## Final revision grade six Mathematics 2016

## (1) Complete each of the following:

- [1] The ratio between the side length of a square and its perimeter is ...: ...
- [2] The side length of a square equals 4 cm, then the ratio between its side length and its perimeter = .....:

[3] 
$$\frac{0.5}{4} = 1 : \dots$$

[4] 300 gm : 
$$\frac{1}{2}$$
 kg = ..... : .....

- [5] 12 kirats : 2 feddans = .... : ....
- [6] 32 months: 4 years = ....: .....
- [7] If A: B = 2: 3 and B: C = 3: 5 then A: C = .....: ......
- [8] If a:b=4:3 and b:c=2:3, then a:c=....:...
- [9] A worker paints a wall of area 100 m² at 8 hours, then the rate of work = ..... m²/hr.
- [10] A plough for agricultural land plough 12 feddans within 3 hours, then the rate of this plough = .... feddans/hr.

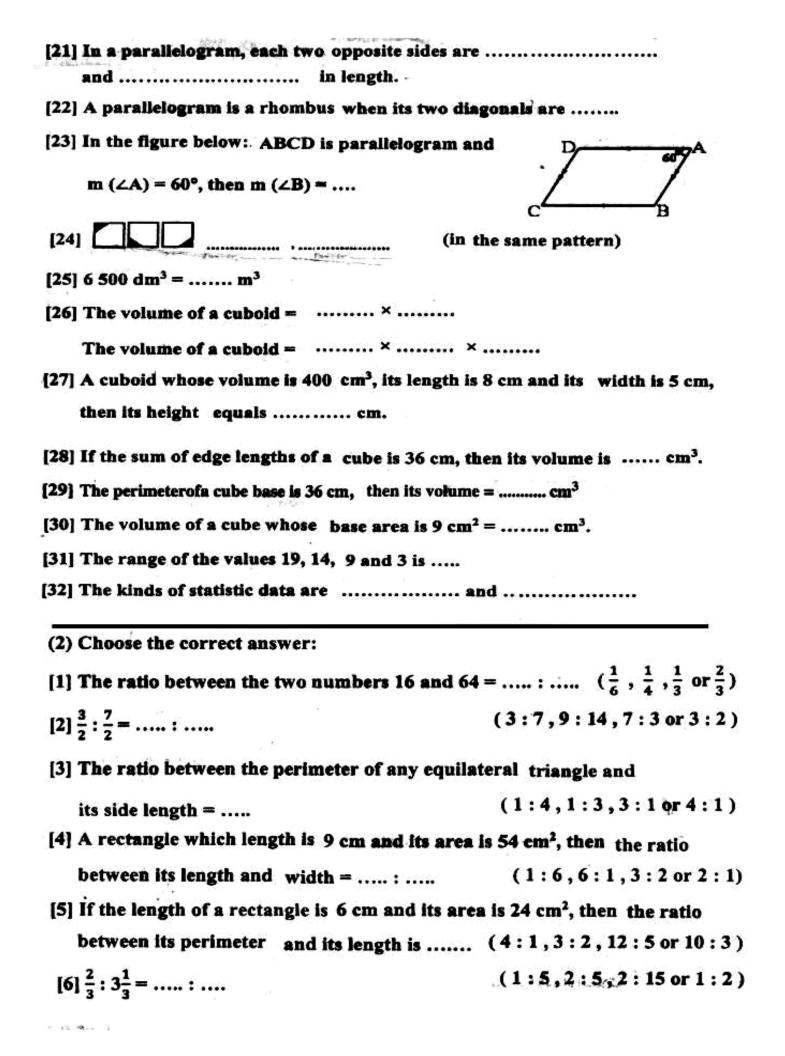
$$[11] \frac{2}{5} = \frac{...}{20}$$

[12] If 
$$\frac{x+4}{6} = 3$$
, then  $x = \dots$ 

- [13] If the numbers 2, 6, y and 27 are proportional, then the value of  $y = \dots$
- [14] If the drawing scale < 1, this expresses .........
- [15] If the drawing scale > 1, this expresses .........
- [16] If the drawing scale is 1: 1000 and the drawing length is 2.5 cm, then the real length = ..... m.
- [17] In a mathematics examination, Rahmah scored 23 marks out of 25 marks, then the percentage of the scored mark of Rahmah = .... %

[18] 
$$\frac{7}{20} = \dots$$
 % [19]  $\frac{3}{4} = \dots$  %

[20] In the parallelogram, the sum of measures of any two consecutive angles = ..... °



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(1:2,1:4,1:8 or 1:5)
[7] 400 grams : 2 kilograms = .... : .....
[8] \frac{1}{2} \text{ day} : 18 \text{ hours} = \dots
                                                     (3:2,4:3,2:3 or 1:9)
[9] The ratio between 12 kirats to 1\frac{1}{2} feddan = ....: .....
                                                   (12:1.5,4:1,1:3 or 3:1)
                                                      (1:4,4:1,1:5 or 5:1)
[10] 125 piastres : 5 pounds = .....
                                                        (\frac{1}{2} cm, \frac{1}{2} meter, \frac{1}{2} or 3)
[11] 75 cm : 2\frac{1}{4} m = .....
[12] The ratio between 25 seconds and \frac{1}{3} minute = .... : .....
                                                      (5:4,4:5,3:5 or 5:3)
[13] If the sum of two numbers = 105 and the ratio between them
                                                               (21,42,63 or 84)
     2:3, then the biggest one = ......
[14] If A: B = 5: 6 and B: C = 3: 4, then A: C = ....:
                                                      (5:4.5:3,5:8 or 3:5)
[15] Hassan spends L.E 75 within three days, then the rate of what
                                                               (25, 30, 45 or 135)
    Hassan spends = ..... L.E/day.
[16] If a car covered 180 km in 3 hours, then the speed of this car =
                                              ..... km/hour. (60 . 80 , 90 or 540)
[17] If two ratios are equal, then the product of the extremes .....
                                                                     (>, <, = \text{ or } \neq)
     the product of the means.
                                                                       (2,4,6 or 8)
[18] If \frac{x+2}{8} = \frac{3}{4}, then x = \dots
[19] If the numbers 6, 8, 3 and x are proportional, then x = ... (4, 5, 6 or 8)
[20] If the drawing length = 2 cm and the real length = 20 metres,
     then the drawing scale equals ..... (1:10, 1:100, 1:1000 or 1:10000)
[21] \frac{9}{20} = \dots \%
                                                                 (40, 45, 60 or 90)
                                                         (0.625, 6.25, 62.5 or 625)
 [22] 0.625 = ..... %
[23] 10\% + \frac{9}{20} = \dots %
                                                                 (35, 45, 55 or 65)
                                                                      (\frac{1}{4}, \frac{1}{2}, 2 \text{ or } 5)
[24] If \frac{x}{5} = 10\%, then x = \dots
[25] If 35% of a number = 140, then the number is .......
                                                            (40, 140, 400 or 500)
[26] The two diagonals are perpendicular and equal in length
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in ......

(rectangle, square, parallelogram or rhombus)

[27] A parallelogram in which its diagonals are perpendicular and not equal in length is called .....

(rectangle, square, parallelogram or rhombus)

- [28] The number of edges of the cube = ..... edges. (6,8,10 or 12)
- [29] The volume of a cuboid whose dimensions are 2 cm, 3 cm and 5  $cm = ..... cm^3$ . (10, 25, 30 or 50)
- [30] The perimeter of one face of a cube is 4 cm, then its volume is

..... cm<sup>3</sup>.

(1,4,6 or 12)

## story problems

- [1] if the ratio between the age of a child and the age of his father 2: 13 if the child's age is 6 years. find the father's age?
- [2] two wire pieces, the ratio between their lengths is 6:8, if the sum of their lengths is 126 meters, calculate the length of each piece?
- [3] the ratio between the height of two buildings in a town is 7:4, if the difference between their heights is 9 meters. find the height of each one?
- [4] if the ratio between the two acute angles in a right angled triangle 2: 1 find the measure of each angle
- [5] the ratio among the measures of the angles of a triangle is 2:3:4 find the measure of each angle?
- [6] A factory produces 5000 juice cans in 8 hours . find the production rate ?
- [7] the distance between two cities 180 km, and the drawing scale 1:9000000 find the distance between them on the map?
- [8] if the length of an insect in a picture 2.5 cm, with a drawing scale 100: 1 what is the real length?
- [9] A car consumes 20 litres of fuel to cover 210 km, How many litres of fuel needed to cover 630 km?

- [10] find the volume of a cube which the sum of edge lengths is 96 cm?
- [11] find the volume of a cube if the perimeter of its base 28 cm?
- [13] which is greater in volume a cuboid of dimensions 4, 5, 7 cm or a cube of edge length 6 cm
- [14] A sweet case in the shape of a cuboid its dimensions are 21, 18, 6 cm it is wanted to fill it with pieces of chocolates each of them is a cuboid of dimensions 3, 3, 1 cm. calculate the number of pieces of chocolates?
- [15] A cube of metal its edge length 12 cm, is needed to be melted and converted into ingots alloys in the form of a cuboid with dimensions 4, 3, 6 cm. calculate the number of alloys
- [16] two persons started a commercial business the ffirst paid L E 5000 and the second paid L E 8000, at the end of the year the profit was L E 3900. find the she share of each
- [17] A man sold his car after one year of using it with price L E 52000, if its buying price was L E 65000, find the percentage of his loss?
- [18] Nahed bought an automatic washing machine for L E 3600 , and the discount was 10 % find the price before discount ?
- [19] A primary school has 540 pupils, if the ratio between the number of boys to girls is 4:5 calculate the number of boys and girls?
- [20] a container has 12 liters of honey, it is wanted to put them in smaller bottles, the capacity of each one is 400 cm<sup>3</sup>. calculate the number of bottles?
- [21] A cuboid of volume 1440 cm3, and its height is 16 cm. find the area of its base?
- [22] A cube shaped vessel, its internal edge 20 cm, it is filled with food oil. a calculate the capacity of the vessel b if the price of one litre of food oil 9.5 pounds calculate the price of all oil
- [23] A trader sold goods for L E 550 with a profit 10 %, find the cost price of goods?
- [18] The following table shows the marks of 100 students in one month in maths:

Marks	20-	30-	40-	50-	total
frequency	15	30	40	15	100

- (1) What is the number of students who recorded less than 40 marks?
- (2) Draw the frequency curve of the distribution.