

MODEL ENTRANCE TEST PAPER-1

BRITISH SECTION

SUBJECT: MATHEMATICS

GRADE: 10

TOTAL MARKS: 25

1. Solve the equation $\frac{5}{w} = \frac{3}{w+1}$ [3m]
2. Factorise $u^2 - 9u - 10$ [2m]
3. $p = \frac{t}{q-1}$.
- Find q in terms of p and t. [3 m]
4. Write down the n^{th} term of the sequence $(1 \times 3), (2 \times 4), (3 \times 5) \dots$ [2m]
5. Write in standard form 0.0004 [2 m]
6. The sum of three consecutive odd numbers is 177. Find the numbers. [2m]
7. The surface area of hemisphere is _____ [2m]
8. Two solid metal spheres have masses of 5kg and 135kg respectively. If the radius of the smaller one is 4 cm, find the radius of the larger one. [2m]
9. In a sale, a jacket costing \$40 is reduced by 20%. What is the sale price? [2m]
10. $\frac{(6x^2y^4)^2 \times (2xy)^3}{12x^6y^8}$ [2m]
11. The graph of a quadratic function, is a _____ [1m]

12. The longest side in a right angled triangle is called _____ [1m]
13. The identity matrix of order 2 is _____ [2m]

SAMPLE 1

MODEL ENTRANCE TEST PAPER-2

PAKISTANI SECTION

SUBJECT: MATHEMATICS

GRADE: 10

TOTAL MARKS: 25

1. A straight line passes through two points with co-ordinates (6, 8) and (0, 5).
Work out the line equation of the line. [3m]
2. Write as a single fraction in its simplest form [3m]
- $$\frac{4}{2x+3} - \frac{2}{x-3}$$
3. Write $2^8 \times 8^2 \times 4^{-2}$ in the form 2^n . [2 m]
4. If $A = \begin{bmatrix} -2 & 3 \\ -4 & 5 \end{bmatrix}$ Find the inverse of matrix A. [2m]
5. $S = \{1, 2, 3, 4, 5, 6, 7, 9, 11, 16\}$. $P = \{2, 3, 5, 7, 11\}$ [3m]
 $S = \{1, 4, 9, 16\}$, $M = \{3, 6, 9\}$
Find $n(M \cap P)$
6. Each angle of an equilateral triangle is _____. [1m]
7. $F(x) = x^2 + 2$ $g(x) = (x+2)^2$ $h(x) = 3x - 5$ [2m]
Find, $g \circ f(-2)$
8. The maximum speed of a car is $252 \frac{\text{km}}{\text{hr}}$. Change this speed into meters per second. [2m]

9. Richardo changed \$600 into pounds (£) when the exchange rate was \$1 = £0.60. He later changed all the pounds back into dollars when the exchange rate was \$1 = £0.72. How many dollars did he receive? [3m]

10. Make y as the subject of the formula. [2m]

$$X + \frac{\sqrt{y}}{8} = 1$$

SAMPLE 1