**Year 9 Higher Standard: Assessment 3 Revision Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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|  | Topic 1: Probability | Mark |
| 1. | The probability that Jess is on time for form is 0.8.  Calculate the probability of her not being on time. | **(1)** |
| 2. | The probability that Tottenham Hotspurs win a game of football is four 3 times the probability that they don’t win.  Work out the probability of them winning. | **(2)** |
| 3. | The probability that Andy is on time for work is 0.7  The probability that Mike is on time for work is 0.5    Calculate the probability that only one of them is on time for work. | **(3)** |
| 4. | A spinner has four sections A, B, C and D.  The table shows the probabilities of the spinner landing on A, B or C.   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | |  | **Outcome** | A | B | C | D | |  | **Probability** | 0.25 | 0.3 | 0.1 |  |   Work out the probability of landing on D. | **(2)** |
| 5. | The ratio of males to females on a trip is 2 : 3  The ratio of students to teachers is 8 : 1  A person is picked at random, calculate the probability of choosing a female student. | **(2)** |
|  |  | **10** |

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|  | **Fractions** | **Mark** |
| **1.** | Calculate the following. Give your answer in its simplest form.  a) Work out  b) Work out  c) Work out d) Work out | **(8)** |
| **2.** | A school has 1200 pupils.  575 of these pupils are girls.  of the girls like sport.  of the boys like sport.  **Work out** the total number of pupils in the school who like sport. | **(2)** |
| **3.** | a) Write these five fractions in order of size. Start with the smallest fraction.    b) Write these numbers in order of size. Start with the smallest number.  65%  0.72 | **(2)**  **(2)** |
| **4.** | Lewis wants to buy a new pair of trainers.  There are 3 shops that sell the trainers he wants.   |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Sports ‘4’ All** |  | **Edexcel Sports** |  | **Keef’s Sports** | | **Trainers** |  | **Trainers** |  | **Trainers** | | **£5 plus** |  | off |  | **£50** | | 10 payments of £4.50 |  | usual price of £65 |  | Plus VAT at 20% |   a) Work out the cost of a pair of the trainers in Sports ‘4’ All.    b) Work out the cost of a pair of the trainers in Edexcel Sports. | **(2)**  **(2)** |
| **5.** | a) Write down the reciprocal of 4  b) Calculate the reciprocal of 0.8 | **(2)** |
|  |  | **20** |
|  | **Angles** | **Mark** |
| **1.** | *DE* is parallel to *FG.*  Find the size of the angle y.  Give a reason for your answer. | **(2)** |
| **2** | *ABCD* is a quadrilateral.  Work out the size of the  largest angle in the quadrilateral. | **(2)** |
| **3.** | *ABC* is parallel to *DEFG*.  *BE* = *EF*.  Angle *ABE* = 38°.  a) Find the value of *x*  Give a reason for your answer  b) Find the value of *y* | **(2)**  **(2)** |
| **4.** | Work out the size of an exterior angle of a regular pentagon. | **(1)** |
| **5.** | This is part of the design of a pattern found  at the theatre of Diana at Alexandria.  It is made up of a regular hexagon, squares and equilateral triangles.  a) Write down the size of the angle marked *x*°.  b) Work out the size of the angle marked *y*°. | **(1)**  **(2)** |
| **6.** | The bearing of *B* from *A* is 035°.  Calculate the bearing of *A* from *B*. | **(1)** |
| **7.** | The diagram shows the position of each  of three buildings in a town.    The bearing of the Hospital from  the Art gallery is 072°.  The Cinema is due East of the  Hospital.  The distance from the Hospital to  the Art gallery is equal to the  distance from the Hospital to  the Cinema.  Work out the bearing of the Cinema from the Art gallery . | **(2)** |
|  |  | **15** |
|  | **Graphs** | **Marks** |
| **1.** | a) Copy and complete the table of values for *y* = 3*x* + 1   |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | *x* | –2 | –1 | 0 | 1 | 2 | 3 | | *y* | –5 |  | 1 |  |  |  |   b) **On graph paper**, draw the graph of *y* = 3*x* + 1  c) Use your graph to find  (i) the value of *y* when *x* = –0.8  (ii) the value of *x* when *y* = 8. | **(2)**  **(2)**  **(2)** |
| **2.** | *A* is the point (0, 1)  *B* is the point (10, 6)    Find the coordinates of the midpoint of *AB*. | **(1)** |
| **3.** | The diagram shows 4 straight lines, labelled **P**, **Q**, **R** and **S.**    The equations of the  straight lines are  **A**: *y* = 2*x*  **B**: *y* = 3 - 2*x*  **C**: *y* = 2*x* + 3  **D**: *y* = 3  Match each straight line, **P**, **Q**, **R** and **S** to its equation. | **(3)** |
|  |  | **10** |