**YEAR 11 Revision Homework for TEST 4 CALCULATOR FOUNDATION**

**Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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| **Compound Measures** | **/10** | **SA and Vol** | **/15** | **Equations** | **/12** | **Percentages** | **/10** |

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| --- | --- | --- |
|  | **Algebra: Compound measure** |  |
| **1.**  **S** | A bus timetable is shown.   |  |  |  |  | | --- | --- | --- | --- | | Lytham | 9.06 | 10.06 | 11.09 | | Ansdell | 9.14 | 10.14 | 11.17 | | St Annes | 9.23 | 10.23 | 11.28 |   a)     How long does it take to travel between Lytham and St. Annes ………………  b)     Ben caught the 11.17 train from Ansdell. It arrive 2 minutes early to St. Annes. What time did the bus arrive in St Annes?  ……………… | **(2)** |
| **2.** | John is planning the journey to an interview.  He needs to be at his interview by 9.30  After he wakes up he needs to allow these times:     |  |  |  | | --- | --- | --- | |  | Get dressed | 30 minutes | |  | Eat breakfast | 15 minutes | |  | Drive to interview | 35 minutes | |  | Walk from the car park | 10 minutes |   What is the latest time John can wake up to be at the check-in desk by 9.30 am?  Show your method  ………………………… | **(2)** |
| **3.**  **S** | A piece of metal has a mass of 300g and a volume of 50 cm3.  Find its density in g/cm3.  ………………………… g/cm3 | **(1)** |
| **4.**  **F** | Below is a mileage chart.   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Leeds |  |  |  |  | | 73 | Liverpool |  |  |  | | 41 | 34 | Manchester |  |  | | 94 | 160 | 131 | Newcastle |  | | 25 | 97 | 65 | 82 | York |  1. How far is the distance between Liverpool and Manchester ………………… miles 2. Jane drives from Liverpool to Newcastle at an average speed of 40m.p.h. How long did her journey take? ………………… hours | **(1)**  **(2)** |
| **5.**  **S** | Find the pressure if a force 75N is applied through an area of 15cm2     |  |  |  |  | | --- | --- | --- | --- | |  | p = pressure | F = Force | A = area |   ………………………… cm² | **(2)** |
|  | **TOTAL** | **/10** |
|  |  |  |
|  |  |  |
|  | **Geometry: Surface Area and Volume** |  |
| **1.**  **S** | Sketch the net of a triangular prism: | **(2)** |
| **2.**  **S** | How many vertices does a sqaure based pryamid have?  ……………… | **(1)** |
| **3.**  **S** | Find the volume of the following shape:    ………………… cm3 | **(1)** |
| **4.**  **S** | Draw a cuboid with a volume of 8cm3 on the isometric paper below: | **(2)** |
| **5.**  **F** | Calculate the volume and surface area of this solid:  4cm  5cm  6cm  Volume: Surface Area:  ………………………………………………………… …………………………………………………………  ………………………………………………………… …………………………………………………………  ………………………………………………………cm3 …………………………………………………………cm2 | **(3)**  **(3)** |
| **6.**  **M** | A packet measures 10 cm by 20 cm by 10 cm. A box measures 40 cm by 60 cm by 100 cm. The box is to be completely filled with the small packets.  Work out the number of packets which can completely fill the box.  ……………… packets | **(3)** |
|  | **TOTAL** | **/15** |
|  |  |  |
|  | **Algebra: Equations** |  |
| **1.S**  **S**  **S**  **F**  **F**  **M** | a)     Solve        4*x* = 12  *x* = ………………  b)     Solve       *x* + 5 = 13  *x* = ………………  c)     Solve       *x* = ………………  d) Solve 2*x* + 7 = 19  *x* = ………………  e) Solve     3(*x* - 2) = 18  *x* = ………………  e) Solve     5*x* - 2 = 3*x* + 20  *x* = ……………… | **(1)**  **(1)**  **(1)**  **(1)**  **(3)**  **(2)** |
| **2.**  **f** | Use trial and improvement to solve x2 + 2x = 58 correct to 1dp   |  |  |  | | --- | --- | --- | | Guess for x | Answer | Comment | | 7  6 | 72 + 2 x 7 =  62 + 2 x 6 = |  |   *x* = ……………… | **(3)** |
|  | **TOTAL** | **/12** |
|  |  |  |
|  | **Number: Percentages** |  |
| **1.** | a)     Write 90% as a fraction in its simplest form.  ………………  b)     Write 20% as a decimal.  ……………… | **(1)**  **(1)** |
| **2.** | 13% of the students in a school wear glasses.  What percentage don’t wear glasses?  ……………… % | **(1)** |
| **3.** | Calculate   |  |  | | --- | --- | | 1. 10% of £80 = ………… 2. 20% of 120 = ………… | 1. 15% of 64 = ………… 2. 55% of 420 = ………… | | **(4)** |
| **4.** | Alice got 48 out of 80 in a Maths test.  She also took and French test and scored 13 out of 25.  Which test did she do better on?  Give a reason for your answer:  ……………………………………………………………………………………………………………………………………………………  ……………………………………………………………………………………………………………………………………………………  ……………………………………………………………………………………………………………………………………………………  ……………………………………………………………………………………………………………………………………………………  ……………………………… | **(3)** |
|  | **TOTAL** | **/10** |