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| *School Name*  *Mathematics Test 2017* | | | |
| Year 7 | | *Fractions* | Non Calculator  Test |
| **Skills and Knowledge Assessed:**   * Compare fractions using equivalence. Locate and represent positive and negative fractions and mixed numbers on a number line (ACMNA152) * Solve problems involving addition and subtraction of fractions, including those with unrelated denominators (ACMNA153) * Multiply and divide fractions and decimals using efficient written strategies and digital technologies (ACMNA154) * Express one quantity as a fraction of another, with and without the use of digital technologies  (ACMNA155) | | | Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| Answer all questions in the spaces provided on this test paper by:  *Writing the answer in the box provided.*  or  *Shading in the bubble for the correct answer from the four choices provided.*  Show any working out on the test paper.Calculators are **not** allowed. | | | |
|  | In which pair of fractions are both denominators equal to 5? | | |
|  | Which pair of fractions are both less than  ? | | |
|  | The fraction of the diagram which is shaded is : | | |
|  | The photo shows a group of pets.  What fraction of the pets are dogs? | | |
|  | Shade  of the shape shown. | | |
|  | Write  as a mixed number. | | |
|  | Write  as an improper fraction. | | |
|  | Simplify the fraction . | | |
|  | The simplest equivalent fraction to | | |
|  | Which fraction is **not** equivalent to  ? | | |
|  | Write these fractions in order from smallest to largest. | | |
|  |  | | |
|  |  | | |
|  |  | | |
|  | Find  of 55 kilograms. | | |
|  | Complete the missing numbers to make pairs of equivalent fractions.  a)  b) | | |
|  | Which of these fractions is **not** equivalent to | | |
|  | Write one of the symbols <, > or = in the boxes below to make true sentences.  a)  b) | | |
|  | What fraction is 4 km of 36 km? (Answer in simplest form). | | |
|  | Mark the position of  on the number line below. | | |
|  | Mark the position of  on the number line below. | | |
|  | Find the answer to the addition, giving your answer in simplest form; | | |
|  | What fraction of the team had arrived by 5:15 pm. | | |
|  |  | | |
|  |  | | |
|  |  | | |
|  | 10 | | |
|  | Simplify | | |
|  | Simplify | | |
|  | Simplify | | |
|  |  | | |
|  | What fraction is 16 hours of 2 ½ days? (Answer in simplest form). | | |
|  | Rewrite the numbers  in ascending order. | | |
|  | Write the reciprocal of these numbers.  a)  b) | | |
|  |  | | |
|  |  | | |
|  |  | | |
|  | Kerrie bought  of fish and he gave  of the fish to his mum and took the rest home to cook himself.  How many kilograms of fish did he take home? | | |
|  | Simplify | | |
|  | If I start with two numbers which are both between 0 and 1, which of these operations will **always** give an answer which is also between 0 and 1.  Adding the two numbers together  Dividing the first number by the second  Multiplying the two numbers together  Subtracting the first number from the second | | |

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ANSWERS

| Question | Working and Answer |
| --- | --- |
|  | Denominator is the bottom, so  **2nd Answer** |
|  | are both less than  **1st Answer** |
|  | 3 parts out of 16, so  **3rd Answer.** |
|  | 5 dogs out of 8 pets, so  **4th Answer** |
|  | Want  of 20 parts so 3 out of  every 4 and there are 5 lots of 4, so    Shade any 15 parts |
|  | **2nd Answer** |
|  |  |
|  |  |
|  | **3rd Answer** |
|  | **1st Answer** |
|  |  |
|  |  |
|  |  |
|  |  |
|  | of 55 kilograms = |
|  | a)  b) |
|  | **4th Answer** |
|  | a)  b) |
|  |  |
|  |  |
|  |  |
|  |  |
|  | **3rd Answer** |
|  | **4th Answer** |
|  | **1st Answer** |
|  | **2nd Answer** |
|  | **4th Answer** |
|  |  |
|  |  |
|  |  |
|  |  |
|  | 2 ½ days = 48+12 = 60 hours  Fraction = |
|  |  |
|  | a)  b) |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  | Adding the two numbers together won’t always give a number between 0 and 1  e.g  Dividing the two numbers won’t always give a number between 0 and 1  e.g  Multiplying the two numbers together will always give a number between 0 and 1  e.g  This will be true for all cases as the numerators are smaller than the denominators so the product of the numerators will be less than the product of the denominators  Subtracting the two numbers won’t always give a number between 0 and 1  e.g  **3rd Answer** |