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| 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. | | | |
|  | Which pair of fractions both have a numerator of 8? | | |
|  | Which pair of fractions are both greater than  ? | | |
|  | The fraction of the diagram which is shaded is : | | |
|  | The photo shows people at a party.  What fraction of them are wearing party hats? | | |
|  | 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 48 litres. | | |
|  | Complete the missing numbers to make pairs of equivalent fractions.  a)  b) | | |
|  | Nat was asked to write a list of fractions which were equivalent to  The list he wrote was:    Which is true?  They are all equivalent to .  One of them is not equivalent to  Two of them are not equivalent to  Three of them are not equivalent to | | |
|  | Write one of the symbols <, > or = in the boxes below to make true sentences.  a)  b) | | |
|  | What fraction is 15 kg of 200 kg? (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; | | |
|  |  | | |
|  | Complete, giving your answer in simplest form; | | |
|  |  | | |
|  | Complete, giving your answer in simplest form; | | |
|  |  | | |
|  |  | | |
|  | Simplify | | |
|  | Simplify | | |
|  |  | | |
|  | What fraction is 25 seconds of 1 minute and 15 seconds? (Answer in simplest form). | | |
|  | Rewrite the numbers  in ascending order. | | |
|  | Write the reciprocal of these numbers.  a)  b) | | |
|  |  | | |
|  |  | | |
|  |  | | |
|  | Max had  of prawns when he got back from the shop.  He ate  of them straight away.  How many kg of prawns did he have left? | | |
|  | Simplify | | |
|  | If I start with a number between 1 and 2, which of these operations will **always** give an answer smaller than the original number.  Dividing the original number by a number less than 1.  Multiplying the original number by a number less than 1.  Multiplying the original number by a number greater than 1.  Squaring the original number. | | |

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| Year 7 | | *Fractions* | Non Calculator  Section |
| ANSWERS | | | |
| No. | WORKING | | ANSWER |
|  | Numerator is the top, so | | 4th answer |
|  | are both greater than | | 2nd answer |
|  | 7 parts out of 10, so | | 3rd answer |
|  | 2 people out of 6, so | | 3rd answer |
|  | Want  of 20 parts so 3 out of  every 5 and there are 4 lots of 5, so    Shade any 12 parts | | |
|  |  | | 4th answer |
|  |  | |  |
|  |  | |  |
|  |  | | 2nd answer |
|  |  | | 1st answer |
|  | Numerators are all 1, so largest denominator is the smallest fraction. | |  |
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|  |  | |  |
|  |  | |  |
|  | of 48 litres = | | 18 litres |
|  | a)  b) | | a) 5 b) 12 |
|  |  | | 3rd answer |
|  | a)  b) | | a) = b) > |
|  |  | |  |
|  |  | | |
|  |  | | |
|  |  | |  |
|  |  | |  |
|  |  | |  |
|  |  | | 1st answer |
|  |  | |  |
|  |  | | 3rd answer |
|  |  | | 2nd answer |
|  |  | |  |
|  |  | | 1st answer |
|  |  | | 4th answer |
|  | 1 minute and 15 seconds = 60+15 = 75 seconds  Fraction = | |  |
|  |  | |  |
|  | a)  b) | | a)  b) |
|  |  | |  |
|  |  | |  |
|  |  | | 4th answer |
|  |  | |  |
|  |  | |  |
|  | If the original lies between 1 and 2, e.g.  .  Dividing the original number by a number less than 1.    Multiplying the original number by a number less than 1.    Multiplying the original number by a number greater than 1.    Squaring the original number. | | 2nd answer |