Name: Teacher: Class:

**7.3 Calculating**

|  |  |  |
| --- | --- | --- |
| **You need to learn to:** | **Pre-learning assessment** | **Post-learning assessment** |
| 1. Apply understanding of place value | *1,2,3* | *1,2,3* |
| 2. Use knowledge of place value to multiply with decimals. | *1,2,3* | *1,2,3* |
| 3. Use knowledge of place value to divide with decimals | *1,2,3* | *1,2,3* |
| 4. Use knowledge of inverse operations to divide with decimals. | *1,2,3* | *1,2,3* |
| 5. Be fluent multiplying a 2 digit by a 3 digit number. | *1,2,3* | *1,2,3* |
| 6. Apply BIDMAS to calculations involving decimals | *1,2,3* | *1,2,3* |
| 7. **Recall** **ALL** multiplication and division facts up to 12 x 12 | *1,2,3* | *1,2,3* |
| 8. Be able to explain weightings in BIDMAS | *1,2,3* | *1,2,3* |
| 9. To be able to add/ subtract in Binary | *1,2,3* | *1,2,3* |

**Assessments**

|  |  |  |
| --- | --- | --- |
| Assessment | What score **I think** I’ll get out of 40  (complete **before** assessment) | What score **I did** get out of 40  (complete **after** assessment) |
| Diagnosis assessment | /40 = % | /40 = % |
| Test assessment | /40 = % | /40 = % |

Name: Teacher: Class:

**7.3 Calculating**

|  |  |  |
| --- | --- | --- |
| **You need to learn to:** | **Pre-learning assessment** | **Post-learning assessment** |
| 1. Apply understanding of place value | *1,2,3* | *1,2,3* |
| 2. Use knowledge of place value to multiply with decimals. | *1,2,3* | *1,2,3* |
| 3. Use knowledge of place value to divide with decimals | *1,2,3* | *1,2,3* |
| 4. Use knowledge of inverse operations to divide with decimals. | *1,2,3* | *1,2,3* |
| 5. Be fluent multiplying a 2 digit by a 3 digit number. | *1,2,3* | *1,2,3* |
| 6. Apply BIDMAS to calculations involving decimals | *1,2,3* | *1,2,3* |
| 7. **Recall** **ALL** multiplication and division facts up to 12 x 12 | *1,2,3* | *1,2,3* |
| 8. Be able to explain weightings in BIDMAS | *1,2,3* | *1,2,3* |
| 9. To be able to calculate in Binary | *1,2,3* | *1,2,3* |

**Assessments**

|  |  |  |
| --- | --- | --- |
| Assessment | What score **I think** I’ll get out of 40  (complete **before** assessment) | What score **I did** get out of 40  (complete **after** assessment) |
| Diagnosis assessment | /40 = % | /40 = % |
| Test assessment | /40 = % | /40 = % |

Mental arithmetic questions “Diagnosis”

To be read to students

7) Times table questions (to be read at a pace of one every 2 seconds – explicitly tell the students we are testing recall not calculation)

9 x 7

5 x 7

6 x 8

12 x 8

9 x 6

11 x 7

7 x 8

9 x 9

7 x 6

8 x 12

Mental arithmetic questions “Test”

To be read to students

7) Times table questions (to be read at a pace of one every 2 seconds – explicitly tell the students we are testing recall not calculation)

9 x 7

4 x 8

3 x 9

12 x 8

6 x 8

11 x 3

7 x 8

9 x 6

7 x 6

8 x 8

**7.3 Numbers and the Number System** Date:

**Diagnosis (to be taken before the topic is taught)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Question n.o.** | **Question** | **Workings and answer** | Macintosh HD:private:var:folders:65:l364j7q962v4_xf3302b347w0000gn:T:TemporaryItems:imgres.jpg |
| 1 | Given 327 x 18 = 5886, answer the following  a) 32.7 x 18 =  b) 3.27 x 1.8 =  c) 5886 ÷ 18 =  d) 5886 ÷ 3.27 = | a)  b)  c)  d) | (4) |
| 2 | Calculate the following  a) 8 x 0.7  b) 11 x 1.2  c) 0.6 x 0.8  d) 0.3 x 90  e) 300 x 0.7 | a)  b)  c)  d)  e) | (5) |
| 3 | Calculate the following  a) 48 ÷ 0.6  b) 144 ÷ 1.2  c) 720 ÷ 0.8  d) 63 ÷ 90  e) 360 ÷ 1.2 | a)  b)  c)  d)  e) | (5) |
| 4 | By using inverse operations solve the following:-  a) 51 ÷ 17 =  b) 90 ÷ 18 =  c) 161 ÷ 23 | a)  b)  c) | (3) |
| 5 | Calculate the following. You must use a different strategy for each question. (your working out is set out in a different way for each)   1. 76 x 538 2. 486 x 736 | a)  b) | (2) |
| 6 | Calculate the following   1. 4 + 5 x (7.3) 2. 17.4 + 3.6 ÷ (3) 3. (0.5)2 + (7)2 4. 56 – 3.25 x 8 5. (3.6 + 2.4)2 \_   60 – (19.6 + 4.4) | a)  b)  c)  d)  e) | (5) |
| 7 | Number Dash  Complete the following ‘quick fire’ times table questions.  a)  b)  c)  d)  e)  f)  g)  h)  i)  j) | a)  b)  c)  d)  e)  f)  g)  h)  i)  j) | (10) |
| 8 | BIDMAS tells me to do addition before subtraction. Therefore  10 – 5 + 7 = -2  True / False  Explain your answer | a) | (1) |
| 9 | Complete the following Binary sums   1. 11 + 1 2. 101 + 110 3. 1001 + 1011 4. 1101 – 101 5. 11001 – 110 | a)  b)  c)  d)  e) | (5) |

**7.3 Numbers and the Number System** Date:

**Test (to be taken after the topic is taught)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Question n.o.** | **Question** | **Workings and answer** | Macintosh HD:private:var:folders:65:l364j7q962v4_xf3302b347w0000gn:T:TemporaryItems:imgres.jpg |
| 1 | Given 564 x 73 = 41172, answer the following  a) 5.64 x 73 =  b) 56.4 x 7.3 =  c) 41172 ÷ 73 =  d) 41172 ÷ 5.64 = | a)  b)  c)  d) | (4) |
| 2 | Calculate the following  a) 12 x 0.7  b) 11 x 1.2  c) 0.7 x 0.9  d) 0.2 x 50  e) 400 x 0.05 | a)  b)  c)  d)  e) | (5) |
| 3 | Calculate the following  a) 54 ÷ 0.6  b) 96 ÷ 1.2  c) 640 ÷ 0.8  d) 6.3 ÷ 30  e) 360 ÷ 1.2 | a)  b)  c)  d)  e) | (5) |
| 4 | By using inverse operations solve the following:-  a) 96 ÷ 16 =  b) 102 ÷ 34 =  c) 115 ÷ 23 | a)  b)  c) | (3) |
| 5 | Calculate the following. You must use a different strategy for each question. (your working out is set out in a different way for each)   1. 57 x 368 2. 845 x 374 | a)  b) | (2) |
| 6 | Calculate the following   1. 7 + 5 x (3.2) 2. 16.2 + 4.8 ÷ (3) 3. (0.3)2 + (0.7)2 4. 53.25 – 3.25 x 8 5. (1.6 + 4.4)2 \_   42 – (12.6 + 11.4) | a)  b)  c)  d)  e) | (5) |
| 7 | Number Dash  Complete the following ‘quick fire’ times table questions.  a)  b)  c)  d)  e)  f)  g)  h)  i)  j) | a)  b)  c)  d)  e)  f)  g)  h)  i)  j) | (10) |
| 8 | BIDMAS tells me to do addition before subtraction. Therefore  10 – 8 + 5 = -3  True / False  Explain your answer | a) | (1) |
| 9 | Complete the following Binary sums   1. 11 + 11 2. 101 + 110 3. 1001 + 1011 4. 1101 – 101 5. 11001 – 110 | a)  b)  c)  d)  e) | (5) |