Name: Teacher: Class:

**8.2 Calculating**

|  |  |  |
| --- | --- | --- |
| **You need to learn to:** | **Pre-learning assessment** | **Post-learning assessment** |
| 1. Add and subtract with negative numbers  | *1,2,3* | *1,2,3* |
| 2. Multiply and divide with negative numbers | *1,2,3* | *1,2,3* |
| 3. Apply BIMDAS to calculations with negative numbers | *1,2,3* | *1,2,3* |
| 4. Apply BIDMAS to calculations involving decimals | *1,2,3* | *1,2,3* |
| 5. Square a 2 digit number mentally | *1,2,3* | *1,2,3* |
| 6. Multiply 3 digit by 3 digit numbers | *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. Know at least two written methods of multiplication and be able to apply to decimals. | *1,2,3* | *1,2,3* |
| 9. Know at least two written methods of division and be able to apply to decimals | *1,2,3* | *1,2,3* |
| 10. Divide any large number using formal methods where answers are not integers showing the answer as either a fraction or decimal | *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:

**8.2 Calculating**

|  |  |  |
| --- | --- | --- |
| **You need to learn to:** | **Pre-learning assessment** | **Post-learning assessment** |
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**Assessments**

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| Test assessment | /40 = % | /40 = % |

Mental arithmetic questions “Diagnosis”

To be read to students

5)

a) 182

b) 272

b) 342

c) 732

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

Mental arithmetic questions “Test”

To be read to students

5)

a) 162

b) 252

b) 372

c) 562

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

**8.2 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 | Calculate the followinga) -43 + 10 b) 25 - 37c) 638 - (-27)d) -35 – (-68)e) negative 7 plus negative 5f) 17 minus negative 15 | a)b)c) d)e)f) | (6) |
| 2 | Calculate the followinga) -8 x 15 b) 78 ÷ -6c) -14 x -8d) -63 ÷ 9e) -5.6 ÷ 0.7 | a)b)c) d)e) | (5) |
| 3 | Calculate the following1. 4 + 5 x (-3)
2. -6 – 15 ÷ (-3)
3. (-3)2 x -7
 | a)b)c) | (3) |
| 4 | Calculate the following1. 70 – 4.25 x 4
2. 5.5 + 0.52
3. (2.5 – 0.52) x 6
4. 100 x (0.3 + 0.1)2 =

 82 | a)b)c)d) | (4) |
| 5 | Square the numbers read out by your teacher. Do not write down any working out.  | a)b)c)d)  | (4) |
| 6 | Calculate the following. You must show your working out. 1. 27.2 x 385
2. 65.3 x 87.9
3. 85.6 $÷$ 12
4. 376 ÷ 16
 |  | (4) |
| 7 | Number DashComplete 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 | Complete the following showing the remainder as a fraction1. 3254 ÷ 17
2. 4150 ÷ 13

Complete the following showing the remainder as a decimal1. 37 ÷ 15 =
2. 21 ÷ 99 =
 | a)b)c)d) | (4) |

**8.2 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 | Calculate the followinga) -57 + 14 b) 37 - 56c) 438 - (-64)d) -59 – (-53)e) negative 14 plus negative 28f) 23 minus negative 57 | a)b)c) d)e)f) | (6) |
| 2 | Calculate the followinga) -6 x 25 b) 132 ÷ 11c) -14 x -8d) -56 ÷ 8e) -8.4 ÷ -0.7 | a)b)c) d)e) | (5) |
| 3 | Calculate the following1. 4 + 5 x (-7)
2. -18 – 36 ÷ (-3)
3. (-3)2 x (–7)2
 | a)b)c) | (3) |
| 4 | Calculate the following1. 56 – 3.25 x 8
2. 2.5 + 0.52
3. (7.5 – 0.52) x 100
4. 100 x (0.6 + 0.2)2 =

 82 | a)b)c)d) | (4) |
| 5 | Square the numbers read out by your teacher. Do not write down any working out.  | a)b)c)d)  | (4) |
| 6 | Calculate the following. You must show your working out. 1. 42.6 x 325
2. 63.5 x 7.98
3. 85.32 $÷$ 24
4. 378 ÷ 18
 |  | (4) |
| 7 | Number DashComplete 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 | Complete the following showing the remainder as a fraction1. 4154 ÷ 14
2. 2755 ÷ 16

Complete the following showing the remainder as a decimal1. 5 ÷ 9 =
2. 23 ÷ 99 =
 | a)b)c)d) | (4) |