**Answer Key – JSS 1 Term 1**

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| **Lesson Title:**  Concept and Vocabulary of Factors |
| **Practice Activity:** PHM-07-001 |

1. a. 22: 1, 2, 11, 22; b. 36: 1, 2, 3, 4, 6, 9, 12, 18, 36; c. 29: 1,29; d. 120: 1, 2, 3, 4, 5, 6, 8, 10, 12, 15, 20, 24, 30, 40, 60, 120
2. 60
3. 18
4. a. 90: 1, 2, 3, 5, 6, 9, 10, 15, 18, 30, 45, 90; b. Even number factors: 2, 6, 10, 18, 30, 90; c. Prime number factors: 2, 3, 4.

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| **Lesson Title:**  Multiples of Whole Numbers |
| **Practice Activity:** PHM-07-002 |

1. a. 6, 12, 18, 24, 30; b. 7, 14, 21, 28, 35; c. 25, 50, 75, 100, 125; d. 40, 80, 120, 160, 200.
2. 21, 24, 27, 30, 33, 36, 39
3. The circled numbers are: 4, 8, 20, 24, 28, 40, 44, 400
4. 75,100,125,150

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| **Lesson Title:**  Prime Factors of Whole Numbers |
| **Practice Activity:** PHM-07-003 |

1. a. 17; b. 2, 11; c. 31; d. 2, 3, 23
2. Completed table:

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| **Numbers** | **Factors** | **Prime factors** |
| **23** | 1, 23 | 23 |
| **34** | 1, 2, 17, 34 | 2, 17 |
| **40** | 1, 2, 4, 5, 8, 10, 20, 40 | 2, 5 |
| **50** | 1, 2, 5, 10, 25, 50 | 2, 5 |

1. 31, 37, 41, 43, 47

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| **Lesson Title:**  Common Factors |
| **Practice Activity:** PHM-07-004 |

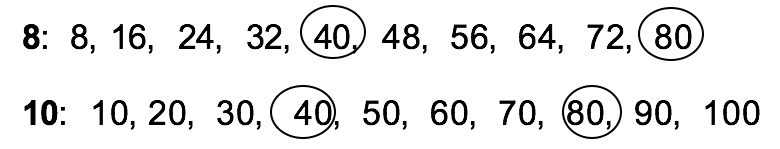
1. a. 1, 2; b. 1, 2, 4; c. 1, 2, 3, 4, 6, 12; d: 1, 5
2. 1, 2
3. a. 24: 1, 2, 3, 4, 6, 8, 12, 24; 36: 1, 2, 3, 4, 6, 9, 12, 18, 36; b. 1, 2, 3, 4, 6, 12; c. 12

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| **Lesson Title:**  Highest Common Factor (HCF) |
| **Practice Activity:** PHM-07-005 |

1. a. 4; b. 5
2. a. 12; b. 28; c. 18
3. 18

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| **Lesson Title:**  Common Multiples |
| **Practice Activity:** PHM-07-006 |





1. 24
2. 30, 60, 90
3. 8, 16, 24, 32, 40

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| **Lesson Title:**  Lowest Common Multiple (LCM) |
| **Practice Activity:** PHM-07-007 |

1. a. 4; b. 6
2. a. 24; b. 60; c. 36

3. 120

4. 180

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| **Lesson Title:**  Square of Whole Number |
| **Practice Activity:** PHM-07-008 |

1. a. 1; b. 16; c. 49
2. a. 121; b. 225; c. 900

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| **Lesson Title:**  Cubed Whole Numbers |
| **Practice Activity:** PHM-07-009 |

1. a. 1000; b. 64; c. 1
2. a. 343; b. 125; c. 0; d. 729

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| **Lesson Title:**  Higher Powers of Whole Numbers |
| **Practice Activity:** PHM-07-010 |

1. a. ; b. ; c.
2. a. ; b. ; c.
3. 625
4. 32
5. 1

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| **Lesson Title:**  Multiplying Two Indices |
| **Practice Activity:** PHM-07-011 |

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| **Lesson Title:**  Dividing Two Indices |
| **Practice Activity:** PHM-07-012 |

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| **Lesson Title:**  Multiplication and Division of Indices |
| **Practice Activity:** PHM-07-013 |

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| **Lesson Title:**  Introduction to Fractions |
| **Practice Activity:** PHM-07-014 |

1. a. ; b. ; c.
2. :



1. You may draw any shapes. These are examples:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| a. |  | b. |  | c. |  |

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| **Lesson Title:**  Fractions with Different Denominators |
| **Practice Activity:** PHM-07-015 |

1. , , , ,
2. ,
3. Circled fractions: , , ,

|  |
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| **Lesson Title:**  Adding Fractions with the Same Denominator |
| **Practice Activity:** PHM-07-016 |

1. a. ; b. ; c.
2. a. 1; b. ; c.
3. of the book
4. 1 bowl of rice

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| **Lesson Title:**  Adding Fractions with Different Denominators |
| **Practice Activity:** PHM-07-017 |

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| **Lesson Title:** Subtracting Fractions with the Same Denominator |
| **Practice Activity:** PHM-07-018 |

1. a. ; b. ; c.
2. a. ; b. ; c.
3. of the book

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| **Lesson Title:** Subtracting Fractions with Different Denominators |
| **Practice Activity:** PHM-07-019 |

1. of the watermelon

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| **Lesson Title:**  Multiplication of Fractions |
| **Practice Activity:** PHM-07-020 |

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| **Lesson Title:** Division of Fractions |
| **Practice Activity:** PHM-07-021 |

1. 3
2. 4

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| **Lesson Title:**  Story Problems on the Basic Operations on Fractions |
| **Practice Activity:** PHM-07-022 |

1. 35 kg.
2. mile
3. of the field
4. 20 cakes
5. hours
6. of a mile

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| **Lesson Title:** Place Value for Decimals |
| **Practice Activity:** PHM-07-023 |

1. Thousandths
2. Circled digits:



1. Completed table:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Tens | Ones | . | tenths | hundredths | thousandths |
| 87.017 | 8 | 7 | . | 0 | 1 | 7 |
| 99.009 | 9 | 9 | . | 0 | 0 | 9 |
| 15.7 | 1 | 5 | . | 7 |  |  |
| 0.11 |  | 0 | . | 1 | 1 |  |
| 10.01 | 1 | 0 | . | 0 | 1 |  |
| 9.090 |  | 9 | . | 0 | 9 | 0 |

1. Completed table:

|  |  |
| --- | --- |
| 24.7 | Twenty-four point seven |
| 19.19 | Nineteen point one nine |
| 91.03 | Ninety-one point zero three |
| 9.006 | Nine point zero zero six |

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| **Lesson Title:** Decimals to Fractions |
| **Practice Activity:** PHM-07-024 |

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| **Lesson Title:** Fractions to Decimals |
| **Practice Activity:** PHM-07-025 |

1. 0.7
2. 0.031
3. 1.99
4. 0.6
5. 0.375
6. 0.45
7. 4.5
8. 0.0625

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| **Lesson Title:**  Rounding off Decimal Numbers to Whole Numbers |
| **Practice Activity:** PHM-07-026 |

1. a. 318; b. 0; c. 2; d. 71; e. 201
2. Completed table:

|  |  |  |
| --- | --- | --- |
| **PUPIL** | **DISTANCE (KM)** | **DISTANCE TO THE NEAREST KM.** |
| **Sia** | 3.8 | 4 |
| **David** | 1.75 | 2 |
| **Annette** | 0.3 | 0 |
| **Yusuf** | 2.5 | 3 |
| **Mary** | 2.189 | 2 |
| **Foday** | 1.09 | 1 |

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| **Lesson Title:**  Rounding off Decimal Numbers |
| **Practice Activity:** PHM-07-027 |

1. 2.2
2. 1.0
3. a. 2.105; b. 0.592; c. 21.021; d. 9.091; e. 310.358
4. Completed table:

|  |  |  |
| --- | --- | --- |
| **DAY** | **FUEL USED (L.)** | **FUEL (L) TO 1 DECIMAL PLACE** |
| **Monday** | 4.578 | 4.6 |
| **Tuesday** | 3.45 | 3.5 |
| **Wednesday** | 5.093 | 5.1 |
| **Thursday** | 0.995 | 1.0 |
| **Friday** | 3.72 | 3.7 |

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| **Lesson Title:**  Rounding Off Whole Numbers and Decimals to the Nearest 10, 100 and 1000 |
| **Practice Activity:** PHM-07-028 |

1. a. 52,590; b. 52,600; c. 53,000
2. Completed table:

|  |  |  |
| --- | --- | --- |
| **CITY** | **POPULATION** | **POPULATION TO THE NEAREST 1000** |
| **Freetown** | 1,055,964 | 1,056,000 |
| **Makeni** | 112,428 | 112,000 |
| **Bo** | 149,957 | 150,000 |
| **Kenema** | 200,354 | 200,000 |
| **Kambia** | 41,200 | 41,000 |
| **Kailahun** | 525,372 | 525,000 |

1. Completed table:

|  |  |  |  |
| --- | --- | --- | --- |
| **Number** | **To the nearest ten** | **To the nearest hundred** | **To the nearest thousand** |
| 98.6 | 100 | X | X |
| 568.19 | 570 | 600 | X |
| 1,115 | 1,120 | 1,100 | 1,000 |
| 56,235 | 56,240 | 56,200 | 56,000 |

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| **Lesson Title:**  Multiplying and Dividing Whole Numbers and Decimals by Powers of 10 |
| **Practice Activity:** PHM-07-029 |

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| **Lesson Title:** Review of the Four Operations with Whole Numbers |
| **Practice Activity:** PHM-07-030 |

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| **Lesson Title:** Review of Addition and Subtraction with Decimals |
| **Practice Activity:** PHM-07-031 |

1. 341.18
2. 0.6
3. 0.44
4. 40.42
5. 25.145
6. 225.2
7. 272.28
8. 6.742
9. 3.75 yards

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| **Lesson Title:** Review of Multiplication and Division with Decimals |
| **Practice Activity:** PHM-07-032 |

1. 2.3 litres

|  |
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| **Lesson Title:** Order of Operations – BODMAS |
| **Practice Activity:** PHM-07-033 |

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| **Lesson Title:** Estimation |
| **Practice Activity:** PHM-07-034 |

1. 20,000
2. 800
3. a. See completed table below; b. 300,000; c. 2,300,000

|  |  |  |
| --- | --- | --- |
| **District** | **Population** | **Estimated Population** |
| Kailahun | 525,372 | 500,000 |
| Kenema | 609,873 | 600,000 |
| Kono | 505,767 | 500,000 |
| Kambia | 343,686 | 300,000 |
| Koinadugu | 408,097 | 400,000 |

1. There are different possible answers based on how you estimate: words or words

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| **Lesson Title:** Story Problems with Whole Numbers and Decimals |
| **Practice Activity:** PHM-07-035 |

1. Le 18,000.00
2. 22.8 kg
3. 7.5 cm
4. 61.4 kg
5. 82.5 kg

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| **Lesson Title:** Percentages |
| **Practice Activity:** PHM-07-036 |

1. 21%
2. 11%
3. a. 15%; b. 3%; c. 50%; d. 81%
4. a. 17%; b. 61%
5. a.32% b.68%

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| **Lesson Title:**  Percentages as Fractions and Decimals |
| **Practice Activity:** PHM-07-037 |

1. a. ; b. ; c.
2. a. 0.07; b. 0.21; c. 0.8
3. ; Mohamed ate more
4. a. , ; b. ; c.

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| **Lesson Title:** Fractions and Decimals as Percentages |
| **Practice Activity:** PHM-07-038 |

1. a. 25%; b. 80%; c. 70%; d. 55%; e. 33%
2. a. 90%; b. 15%; c. 88%; d. 1%
3. a. 60%; b. 0.6
4. a. ; b. 75%

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| **Lesson Title:**  Identify the Percentage of a Given Quantity |
| **Practice Activity:** PHM-07-039 |

1. 480
2. 50
3. Le 960.00
4. 42 mangoes
5. 15 oranges
6. 420 children
7. 125 newspapers
8. Le120,000.00

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| **Lesson Title:**  Express One Quantity as a Percentage of Another |
| **Practice Activity:** PHM-07-040 |

1. 10%
2. 20%
3. 15%
4. a. 80%; b. 20%
5. a. 10%; b. 70%; 20%

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| **Lesson Title:**  Percentage Increase |
| **Practice Activity:** PHM-07-041 |

1. 15%
2. 6.25%
3. 5%
4. 30%
5. 50%
6. 10%

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| **Lesson Title:**  Percentage Decrease |
| **Practice Activity:** PHM-07-042 |

1. 50%
2. 7.5%
3. 12.5%
4. 5%
5. 51%

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| **Lesson Title:**  Percentage Increase or Decrease |
| **Practice Activity:** PHM-07-043 |

1. Le 66,500.00
2. 9.2 seconds
3. 104 cm.
4. Le 78,090.00
5. 598 pupils
6. Le4000.00

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| **Lesson Title:**  Apply Percentages to Problems with Money |
| **Practice Activity:** PHM-07-044 |

1. Le 7,650,000.00
2. Le 2,750,000.00
3. a. Increase; b. 15%
4. 5%
5. Le 285,000.00

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| **Lesson Title:**  Story Problems with Percentages |
| **Practice Activity:** PHM-07-045 |

1. 25%
2. 46%
3. 161 cm
4. 4 questions
5. a. 80 children; b. 170 adults