**Lesson 1.0**
**Quiz** **Unit 1**

---

**Draw a Venn diagram showing the relationship between the following sets of numbers:**

1. Integers, Naturals, Irrationals, Rationals, Wholes, and Reals

**List every set to which the number belongs:**

2. 39
3. 0
4. $\sqrt{16}$
5. -42
6. $\sqrt{13}$

**Tell if each set is finite or infinite:**

7. Integers which are not naturals
8. Wholes between 9 and 42
9. Reals less than three
10. Rationals less than three
11. Naturals less than 0
12. Naturals less than 3

**Given A = {-2, -1}, B = {8, 9, 11}, C = {0, 1, 2, 3, . . .}, express a relationship between:**

13. B and C
14. A and B
15. A and C

**Lessons 1.1 - 1.2**
**Quiz - Form A** **Unit 1**

---

**Compute:**

1. $25 + 5 + (7 + 2)5$

2. $(68 + 4)3 - 3(60 - 45) + 2 \cdot 6$

**Evaluate for the given values of the variables:**

3. $6x + 3 + 4y$ for $x = 3$ and $y = 4$

4. $2a - 5b + ab$ for $a = 7$ and $b = 6$

5. $\frac{4a + 7}{12 - 3b}$ for $a = 5$ and $b = 3$

6. $0.02x - 0.15y + 0.4yz$ for $x = 2$, $y = 5$ and $z = 4$

**Lessons 1.1 - 1.2**
**Quiz - Form B** **Unit 1**

---

**Compute:**

1. $48 \div 6 + (3 + 6)4$

2. $(76 \div 4)2 - 2(75 - 60) + 3 \cdot 4$

**Evaluate for the given values of the variables:**

3. $4x + 3 + 5y$ for $x = 2$ and $y = 3$

4. $3a - 4b + ab$ for $a = 6$ and $b = 3$

5. $\frac{3a + 6}{19 - 4b}$ for $a = 5$ and $b = 4$

6. $0.04xy + 0.7z - 0.3x$ for $x = 5$, $y = 2$ and $z = 6$

**Lessons 1.3 - 1.4**
**Quiz - Form A** **Unit 1**

---

**Simplify:**

1. (5c)4
2. 2(a)(48d)

**Use the Distributive Property to compute:**

3. (5 + 6 + 7)3
4. (2x + 7)4
5. 260 • 92 + 260 • 8

**Lessons 1.3 - 1.4**
**Quiz - Form B** **Unit 1**

---

**Simplify:**

1. (6d)3

2. 3(b)(17c)

**Use the Distributive Property to compute:**

3. (4 + 5 + 6)3

4. (3x + 6)5

5. 320 · 84 + 320 · 16

**Lessons 1.5 - 1.6**
**Quiz - Form A** **Unit 1**

---

**Simplify:**

1. $6(7c + 2) + 4c + 3$
2. $9y + 3(4y + 2) + 5 + 6y + (7 + 3y)4$
3. Evaluate #2 for $y = 3$

**Evaluate for the given variables:**

4. $ab^4$ for $a = 3$ and $b = 4$
5. $\frac{x^2 - b^2}{x - b}$ for $x = 6$ and $b = 4$

**Lessons 1.5 - 1.6**
**Quiz - Form B** **Unit 1**

---

**Simplify:**

1. $3(7c + 2) + 3c + 7$
2. $8x + 3(4x + 2) + 5 + 6x + (7 + 3x)2$
3. Evaluate #2 for $x = 2$

**Evaluate for the given variables:**

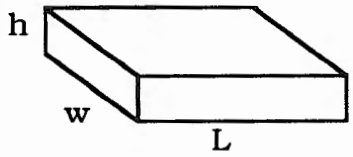
4. $ab^4$ for $a = 2$ and $b = 3$
5. $\frac{x^2 + b^2}{x - b}$ for $x = 5$ and $b = 3$

**Lesson 1.7 - Review of Unit 1**
**Quiz - Form A** **Unit 1**

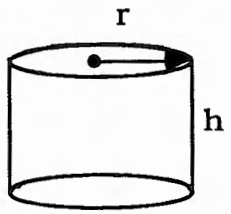
---

**Find the volume of each solid using the given formulas:**

1. $v = Lwh$
   $w = 5,\ L = 6,\ h = 4$




2. $v = \pi r^2 h$
   $r = 5,\ h = 7$




**Evaluate for the given values of the variables:**

3. $\frac{3b - 7a}{4a - 4}$ for $a = 2$ and $b = 6$

4. $\frac{x^2 + b}{b^2 - 18}$ for $x = 3$ and $b = 5$

**Simplify:**

5. $4(7c + 2) + 4c + 3$

6. $3(b)(21a)$

7. $5(3y + 2) + 7y + 8 + (5 + 2y)3$

**Compute:**

8. $28 \div 4 + 3(9 + 1)$

**Use the Distributive Property to compute:**

9. $(7x + 4)2$

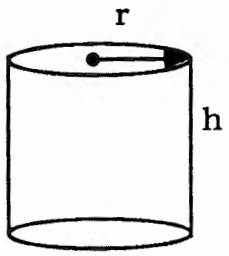
10. $(4 + 3 + 7)2$

**Lesson 1.7 - Review of Unit 1**
**Quiz - Form B** **Unit 1**

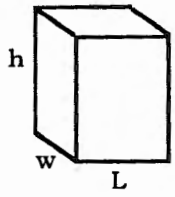
---

**Find the volume of each solid using the given formulas:**

1. $v = \pi r^2 h$
   $r = 4,\ h = 6$




2. $v = Lwh$
   $L = 4,\ w = 3,\ h = 7$




**Evaluate for the given values of the variables:**

3. $\dfrac{9a - 6}{2b + 3}$ for $a = 3$ and $b = 2$

4. $\dfrac{x^2 + b}{b - x}$ for $x = 3$ and $b = 5$

**Simplify:**

5. $5(4c + 2) + 3c + 5$

6. $(5d)(2)(b)$

7. $8x + 2(3x + 2) + 5 + 7x + (3 + 4x)3$

**Compute:**

8. $30 \div 6 + (8 + 4)3$

**Use the Distributive Property to compute:**

9. $(3y + 4)5$

10. $(6 + 2 + 5)3$

**Unit 1**
**Test - Form A** **Unit 1**

---

**Tell which set is a subset of the other:**

1. Rationals; Naturals
2. Irrationals; Reals

**Evaluate:**

3. $3 \cdot 4 + 5$
4. $6(2 + 3) - 10(1 + 2)$
5. $94 - 6[22 - 4(18 \div 9)]$

**Evaluate for the given value of the variable(s):**

6. $\frac{6b + 4}{k + 2}$ for b = 6, k = 8
7. $\frac{2x + 3y - z}{3x - 1}$ for x = 2, y = 6, z = 7
8. $ab + 4a + 10b$ for a = 7, b = 8
9. $0.15xy - 0.04z + 1.17y$ for x = 3, y = 5, z = 4
10. $3(x + 1) + (2x + 4)7$ for x = 2
11. $4y + 4 + 2(3y+4) + (5y+1)6$ for y = 5

**Simplify:**

12. $10 \cdot 5 \cdot 4$
13. $7y(9)5$
14. $46 \cdot 86 + 3 \cdot 86 + 51 \cdot 86$
15. $3r + r + 2$
16. $2k + (x + 2)3 + 3 + x + k$
17. $3m + 2(8m + 4) + m + 6$
18. $3a + 5[(2a + 6)4 + 7a]$

**Expand:**

19. $2x^3y^2$

**Rewrite with exponents:**

20. $3 \cdot 2r \cdot 2r \cdot 2r$

**Evaluate:**

21. $2a^5$ for a = 1
22. $3x^2y$ for x = 10, y = 4
23. $\frac{x^2 - y^2}{x - y}$ for x = 3, y = 2
24. Find the area of a circle with r = 8cm.
25. Find the volume of a cylinder with r = 7cm, h = 8cm.

**Unit 1**
**Test - Form B** **Unit 1**

---

**Tell which set is a subset of the other:**

1. Integers; Naturals
2. Wholes; Reals

**Evaluate:**

3. $3 \cdot 5 + 4$
4. $3(2 + 3) - 8(2 + 3)$
5. $72 - 5[18 - 4(16 \div 8)]$

**Evaluate for the given value of the variable(s):**

6. $\frac{6b + 4}{k + 3}$ for b = 6, k = 7
7. $\frac{3x + 4y - z}{3x - 1}$ for x = 2, y = 5, z = 6
8. $xy + 4x + 10y$ for x = 7, y = 8
9. $0.15xy + 0.04z + 1.17y$ for x = 3, y = 4, z = 5
10. $2(3x + 4) + (x + 2)5$ for x = 2
11. $3y + 4 + 3(3y+2) + (3y+1)6$ for y = 3

**Simplify:**

12. $6 \cdot 4 \cdot 7$
13. $6y(7)4$
14. $37 \cdot 81 + 17 \cdot 81 + 46 \cdot 81$
15. $3r + r + 5$
16. $3k + (x + 3)2 + k + x$
17. $3m + 3(7m + 4) + m + 6$
18. $4a + 6[(2a + 4)4 + 6a]$

**Expand:**

19. $6x^3y^4$

**Rewrite with exponents:**

20. $4 \cdot 2x \cdot 2x \cdot 2x$

**Evaluate:**

21. $2a^6$ for a = 1
22. $4x^2y$ for x = 8, y = 3
23. $\frac{x^3 - y^3}{x - y}$ for x = 3, y = 2
24. Find the area of a circle with r = 6cm.
25. Find the volume of a cylinder with r = 6cm, h = 7cm.