

1. Order the rational numbers:

$$5, \sqrt{9}, \bar{.1}, \frac{1}{3}, \sqrt{\frac{9}{16}}$$

2. Identify a rational number between the two given numbers:

A) 1.0 B) .52 C) .37 D) .30

$$\frac{1}{3} \quad \boxed{\phantom{000}} \quad .4$$

3. Perform operations:

$$.25 + .753 - .005 =$$

4. Perform Operations:

$$\frac{1}{2} + \frac{1}{8} - \frac{1}{4} =$$

5. Determine the square root without a calculator

$$\sqrt{25 - 9} =$$

6. Determine approximate square root:

$$\sqrt{9 + 4} \approx$$

7. Write the following in exponents:

$$5 \times 5 \times 5 \times 5 \times 5 \times 5 =$$

8. Write the following in repeated multiplication:

$$9^4 =$$

9. Identify the base and the exponent:

$$3^2 \text{ Base} = \quad \text{Exponent} =$$

10. Which of the following equals 8:

$$3^2 \text{ Or } 2^3$$

11. Evaluate:

$$(-2)^3 =$$

$$(-2^3) =$$

$$-2^3 =$$

12. Evaluate:

$$6^6 =$$

13. Multiply or Divide then evaluate:

$$5^2 \times 5^5 =$$

$$7^3 \div 7^2 =$$

14. Raise the power then evaluate:

$$(2^4)^2 =$$

15. Evaluate:

$$(3 \times 4)^2 =$$

16. Evaluate:

$$9^0 =$$

$$1250^0 =$$

17. Fill in the pattern:

$$4^4 =$$

$$4^3 =$$

$$4^2 =$$

$$4^1 =$$

$$4^0 =$$

18. Identify error:

$$(3 \times 2)^2 = (6 \times 4) = 24$$

19. Simplify:

$$(10^2)^5 \times 10^4 \div (10^{10}) =$$

20. Evaluate (BEDMAS):

$$2^2 \times 2^7 - 2^3 =$$

21. Evaluate:

$$3^2 + 5^1 - 6^0 =$$

22. Identify the error:

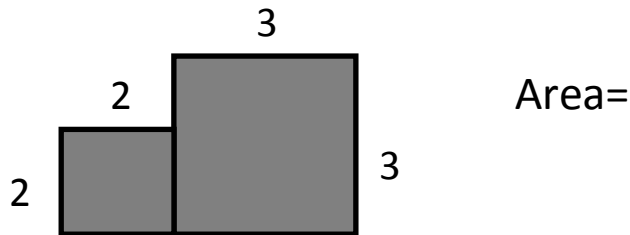
$$5^2 - 2^3 \div 2^1$$

$$25 - 8 \div 2$$

$$17 \div 2$$

$$= 8.5$$

23. Use powers and find the area of the shaded parts:



24. Solve:

$$5^2 \times 5^7 + 3^2 - (5^2)^3 =$$

25. Identify the terms in the polynomial:

$$x^2 - a^2x^3 + b^7x^4 + 5$$

Constant=

Coefficient=

Degree=

# of terms=

Variables=

26. Name the following types of polynomials:

A

B

C

$$x^2 + 5$$

$$c^2$$

$$x^2 + c^3 - 2$$

A= \_\_\_\_\_

B= \_\_\_\_\_

C= \_\_\_\_\_

27. Create a model for the expression:

$$(x^2 + b^4 + 7) \times (x^2 + b^4 + 7)$$



28. Write an expression for the model:

$$b^2 + 5$$



$$c^2 a^2 - 2$$

29. Write an expression for a rectangle with the sides  $x^2 + 14$  and  $a^2 + x^2 - 2$

30. Draw algebra tiles to see if the following are equal:

$$2x^2 - 1x^2 + 6 \quad \text{and} \quad 3x^2 + 6$$

Legend



$$= x^2$$



$$= -x^2$$



$$= x$$



$$= -x$$



$$= 1$$



$$= -1$$

Answers to part 1 of Review Package

1.  $\overline{.1}$ ,  $\overline{.3}$ ,  $\sqrt{\frac{9}{16}}$ , 3, 5,

2. C

3. .998

4.  $\frac{3}{8}$

5. 4

6.  $\approx 3.6$

7.  $5^6$

8.  $9 \times 9 \times 9 \times 9$

9. Base= 3 Exponent= 2

10. B

11. -8, -8, -8

12. 46,656

13. 78,125, 7

14. 256

15. 144

16. 1, 1

17. 256, 64, 16, 4, 1

18. Didn't multiply inside the brackets (BEDMAS)

19.  $10^4 = 10,000$

20. 504

21. 13

22. Subtracted before dividing (BEDMAS)

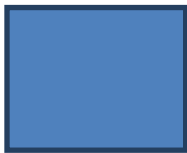
23.  $13^2$

24. 1937509

25. Constant= 5, # of terms= 4, Coefficient= 1, Variables= x, a, b, Degree= 11

26. A= Binomial B= Monomial C= Trinomial

27.  $(x^2 + b^4 + 7)$



$(x^2 + b^4 + 7)$

28.  $(b^2 + 5) x (c^2 a^2 - 2)$

29.  $(x^2 + 14) (a^2 + x^2 - 2)$

30. 