1. Simplify EACH expression:

 $13^{2}= \\_\\_\\_\\_\\_$ $11^{2}= \\_\\_\\_\\_\\_$ $14^{2}= \\_\\_\\_\\_\\_$

 $2^{3}= \\_\\_\\_\\_\\_$ $5^{3}= \\_\\_\\_\\_\\_$ $1^{5}= \\_\\_\\_\\_\\_$

2. Determine if EACH statement is TRUE or FALSE.

 A $3^{2 } <10$ D $6^{2 } <34$

 B $5^{2 } > 25$ E $9^{2 } > 80$

 C $4^{2 } < 9$ F $7^{2 } > 50$

3. The formula for area of a square is A = s2 , where

 “s” is the length of one side of the square.

 Ms. Sailor is putting new carpet in her home

 office. The room is a square with a side length of

 12 ft. How much carpet is needed for the room?

4. The formula for volume of a cube is V = s3 , where

 “s” is the length of one side of the cube.

 Mrs. Lafayette built a toy box for her grandson. It

 is a cube with a side length of 5 ft. What is the

 volume of the toy box?

5. Which expression is equivalent to $4^{3}$ ?

 A $4+4+4$ C $4 ∙ 4 ∙ 4$

 B $4 ∙3$ D $3∙3 ∙3 ∙3$

6. Simplify: $30 - 5 +9 ∙ 2$

7. Simplify: $8+ 120 ÷ 8 ∙ 10 ÷ 2$

8. Simplify: $4 ∙ 5^{2}$

9. Simplify: $33 - 3(2 + 4 ∙ 2)$

10. Simplify: $77 - 7 ∙ 4 + (4+3)^{2}$

11. Identify the step where an error first appears.

$$45 - 5(1 + 4 ∙ 2)$$

$45 - 5(1 + 8)$ STEP 1

$45 - 5(9)$ STEP 2

$40(9)$ STEP 3

$360$ STEP 4

12. Identify the step where an error first appears.

$$8 + 100 ÷ 5 ∙ 10 ÷ 2$$

$8 + 20 ∙ 10 ÷ 2$ STEP 1

$8 + 20 ∙ 5$ STEP 2

$8 + 100$ STEP 3

$108$ STEP 4

13. Write TWO equations for EACH figure below.



$$\sqrt{25}=5$$

$$5^{2} =25$$







 14. Which arrangements of small squares can

 be used to model a large square that

 represents $\sqrt{64}$ ?

A 2 rows of 32 squares

B 8 rows of 8 squares

C 4 rows of 16 squares

D 7 rows of 7 squares

15. Which model does NOT represent 32?

C

A



3

3

3

D

B



3

3

16. Determine if EACH statement is TRUE or FALSE.

 A $\sqrt{16} = 8$

B $\sqrt{49} = 7$

 C $\sqrt{64} = 16$

D $\sqrt{100} = 50$

E $\sqrt{144} = 12$

F $\sqrt{81} = 9$

17 . Simplify: $-7 ∙ 5$

18. Simplify: $-8 ∙ -7$

19. Simplify: $-40 ÷ -8$

20. Simplify: $30 ÷ -5$

21. Simplify: $-2 ∙ -4 ∙ -1 ∙ -2$

22. Simplify: $-8 + -5$