DIRECTIONS: No calculators may be used. All cell phones must be turned off and put inside your bag. Be sure to show your work. Depending on the problem, you may receive no credit if no work is shown even if the answer is correct. If there is a blank, write your answer in the blank, otherwise **circle your answer**. **Keep this test** to study from for the final exam.

MATCHING In the blank in front of each expression on the left, put the letter of the correct match from the column on the right. Note that some of the letters might not be used at all, and some may be used more than once. (5 points total)

1.

   _____ 5^0 A)   0

   _____ $5 \div 0$ B)   1

   _____ 0^5 C)   5

   _____ $0 \div 5$ D)   undefined

   _____ $0 \div 0$ E)   indeterminate

PROPERTIES   (9 points total)

2.

a) $1 + (2 + 3) = (2 + 3) + 1$ is an example of which property? (circle one below)

associative   commutative   distributive   identity   inverse

b) $4 + (5 + 6) = (4 + 5) + 6$ is an example of which property? (circle one below)

associative   commutative   distributive   identity   inverse

c) $5 \cdot 1 = 5$ is an example of which property? (circle one below)

associative   commutative   distributive   identity   inverse

For problems 3–4 find the perimeter and area of the figure shown. For problem 5, find the volume. REMEMBER to give your answer using correct units. **Put your answers in the blanks provided ABOVE each problem**. The first 2 problems are 9 points each (5 points for correctly finding each numerical value and 4 points for correctly labeling each), and the last one is 5 points. Note that "P" means "perimeter," "A" means "area," and "V" means "volume."
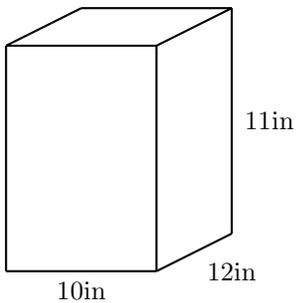
4. P= _____ A= _____

9cm

17cm

10cm

15cm

3. P= _____ A= _____

13in.

12in.

10in.

5. V= _____

11in

12in

10in
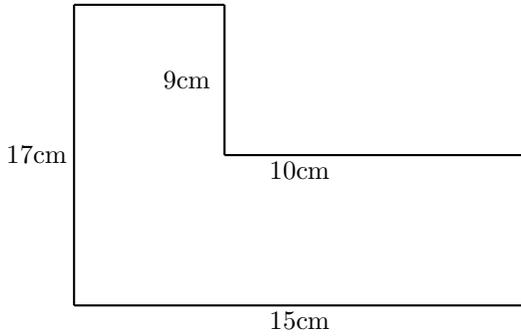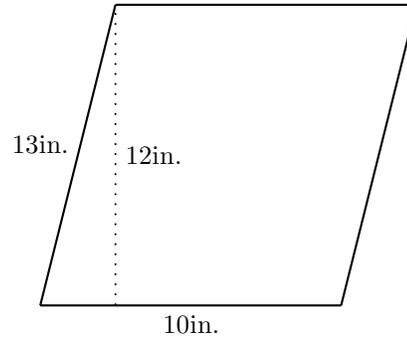
NUMBER

6.   Write the word name of the number 4,000,505,208.   (2 points)

_____

Round the number 98,345,178 to the places indicated below: (3 points each)

7.   tens _____   8.   thousands _____   9.   ten-millions _____

EXPONENTS : Find the value of each expression below. (3 points each)

10. $(-1)^4 = $ _____   11. $-3^4 = $ _____

12. $12^2 = $ _____   13. $10^0 = $ _____

RADICALS : Find the value of each expression below. If the answer is not an integer, write "not integer" in the blank. (3 points each)

14. $\sqrt{196} = $ _____   15. $4\sqrt{9} = $ _____

16. $\sqrt{-16} = $ _____   17. $-\sqrt{16} = $ _____

EVALUATE Find the value of the expressions in problems 18–21   (3 points each)

18. $8 - 12 \div 12 - 10$ 19. $5(-3) \div (-3)(1)^2$

20. $-12 - 8 - 9 - (-2)$

21. $15 - 2|3 - 7|^2 + 2 \cdot 3^2$

WORD PROBLEM (4 points each)

22. A car traveled 220 miles in 5 hours. What was the average speed of the car?

23. Find the median and the mean of the list of numbers below

$$8, \ 4, \ 18, \ 6, \ 9, \ 3, \ 1, \ 7$$

median is _____   mean is _____

24.   A merchant bought twenty boxes of canned fruit for $200. If there are 16 cans per box, and he sold each can for $1.69, what was his net? Was is a profit or a loss?

25.   Freda wants to paint a room in her house. The room is 16 feet by 22 feet, and the ceiling is 10 feet high. There is a doorway that measures 8 feet by 6 feet. If a gallon of paint covers 360 square feet, how many gallons of paint must she buy in order to paint the room?