

1. An integer greater than 1 that is not prime is called composite. If the two-digit integer n is greater than 20, is n composite?

- (1) The tens digit of n is a factor of the units digit of n .
- (2) The tens digit of n is 2.

2. Is the measure of one of the interior angles of quadrilateral $ABCD$ equal to 60° ?

- (1) Two of the interior angles of $ABCD$ are right angles.
- (2) The degree measure of angle ABC is twice the degree measure of angle BCD .

3. Is $x + y < 1$?

- (1) $x < \frac{8}{9}$
- (2) $y < \frac{1}{8}$

4. Is $x^4 + y^4 > z^4$?

- (1) $x^2 + y^2 > z^2$
- (2) $x + y > z$

5. At a certain theater, the cost of each adult's ticket is \$5 and the cost of each child's ticket is \$2. What was the average cost of all the adult's and children's tickets sold at the theater yesterday?

- (1) Yesterday ratio of # of children's ticket sold to the # of adult's ticket sold was 3 to 2
- (2) Yesterday 80 adult's tickets were sold at the theater.

6. Are some goats not cows?

- (1) All cows are lions
- (2) All lions are goats.

7. Patrick is cleaning his house in anticipation of the arrival of guests. He needs to vacuum the floors, fold the laundry, and put away the dishes after the dishwasher completes its cycle. If the dishwasher is currently running and has 55 minutes remaining in its cycle, can Patrick complete all of the tasks before his guests arrive in exactly 1 hour?

- (1) Vacuuming the floors and folding the laundry will take Patrick 36 minutes.
- (2) Putting away the dishes will take Patrick 7 minutes.

8. Are all of the numbers in a certain list of 15 numbers equal?

- (1) The sum of all the numbers in the list is 60.
- (2) The sum of any 3 numbers in the list is 12.