Topic: Prime and composite

Question: Which number is prime?

Answer choices:

A 32

B 43

C 51

D 105

Solution: B

If a whole number greater than 1 is divisible by some number other than 1 and itself, then we know it's a composite number, not a prime number.

32 is divisible by 2: $32 \div 2 = 16$

51 is divisible by 3: $51 \div 3 = 17$

105 is divisible by 5: $105 \div 5 = 21$

The only answer choice that isn't divisible by any number other than 1 or itself is 43, so this is the only prime number, and the correct answer is 43.

Topic: Prime and composite

Question: Which number is prime?

Answer choices:

A 3

B 6

C 0

D 1

Solution: A

A prime number is a whole number greater than 1 which is divisible only by 1 and itself.

Because prime numbers are defined as greater than 1, that rules out 0 and 1 right away, leaving only 3 and 6 as possible correct answers. But 6 is divisible by 2 and 3 in addition to being divisible by 1 and itself.

3 is the only number which greater than 1 which is also only divisible by 1 and itself.

Topic: Prime and composite

Question: Which number is a composite?

Answer choices:

A 5

B 1

C 30

D 107

Solution: C

The numbers 1, 5, and 107 aren't divisible by anything other than 1 and themselves.

30 is divisible by 2, 3, 5, 10, and 15, in addition to being divisible by 1 and itself. So 30 is a composite number.