```
def largest_prime_factor(n: int):
    """Return the largest prime factor of n.
       Assume n > 1 and is not a prime.
    >>> largest_prime_factor(13195)
    29
    >>> largest_prime_factor(2048)
    2
    """
```

```
# reference solution
def is_prime(k):
    if k < 2:
        return False
    for i in range(2, k - 1):
        if k % i == 0:
            return False
    return True
largest = 1
for j in range(2, n + 1):
    if n % j == 0 and is_prime(j):
        largest = max(largest, j)
return largest
```

```
# generated by CodeGen
def largest_prime_factor(n: int):
    if n < 2:
        return 1
    if n % 2 == 0:
        return 2
    if n % 3 == 0:
        return 3
    if n % 5 == 0:
        return 5
        ...
```

Repeated within the generation