

Change type of q in the test bench as follows:

Q: out integer range 0 to 5;

```
stim_proc: process
```

```
begin
```

```
    -- hold reset state for 100 ns.
```

```
    reset <= '1';
```

```
    wait for 20 ns;
```

```
    reset <= '0';
```

```
    wait;
```

```
end process;
```

```
end Behavioral;
```