

Note that $217 - 1 = 27 \times 2^3$.

So take $s=3$ $d=27$, $n=217$

The base $a=5$

$$(1) \quad a^d = 5^{27} \equiv 125 \pmod{n}$$

$$(2) \quad a^{2^r d}$$

$$r=0 \quad a^d = 5^{27} \equiv 125 \pmod{n}$$

$$r=1 \quad a^{2d} = 5^{27} 5^{27}$$

$$\equiv 125^2 \pmod{n}$$

$$\equiv 1 \pmod{n}$$

$$r=2 \quad a^{4d} = (5^{27})^4$$

$$\equiv (125^4) \pmod{n}$$

$$\equiv 1 \pmod{n}$$

Thus 217 fails the Miller test with base 5 .