

## Classified - Standard Form Answers

### 2] Standard form

1. a)  $4 \times 10^4$

b)  $5.6 \times 10^3$

c)  $4.12 \times 10^7$

d)  $8 \times 10^{-8}$

e)  $3.45 \times 10^{-4}$

2.  $3.7341 \times 10^{10}$

3.  $4.12 \times 10^{-13}$

4. No, because  $6.212$  is multiplied by  $10^8$  while  $4.73$  is multiplied by  $10^9$  and  $10^9$  is bigger than  $10^8$

5.  $\frac{10^3}{2} = \frac{10 \times 10 \times 10}{2} = \frac{1000}{2} = 500$

while  $5^3 = 5 \times 5 \times 5 = 125$

No, They are not the same

6. a)  $5.2 \times 10^3$

b)  $5.2 \times 10^4$

c)  $5200000$

d)  $0.047$

7 a)  $7.6 \times 10^8$

b)  $4.6 \times 10^{-5}$

8. Yes

because  $5 \times 10^4 = 50000$

while  $6.7 \times 10^3 = 6700$

9. a)  $>$       c)  $>$

b)  $>$       d)  $>$

10.  $3 \times 10^{-2} = 0.03$

while  $4 \times 10^{-3} = 0.004$

Yes,  $3 \times 10^{-2}$  is greater

11.  $10^3 \times 10^3 = 10^1 \times 10^5$

$10^{6+1} = 10^3 \times 10^3$

12.  $(3 \times 10^2) \times (5 \times 10^6)$

$= 15 \times 10^8$

$= 1.5 \times 10^9$

13.  $6.15 \times 10^4$

14.  $5 \times 10^{-4}$

15.  $1.8 \times 10^{-5} \text{ m}$

20. a)  $10^2$

16. Iceland

b)  $10^2$

680000000

c)  $10^6$

d)  $10^6$

17. a)  $66.3 \times 10^6$

$= 6.63 \times 10^7$

b)  $5.12 \times 10^9 \text{ km}$

18.  $8.7 \times 10^7$

19. a)  $b = 10^4$

b)  $a = 4$

c)  $c = 12 - 4 = 8$

d)  $d = 10^4$

e)  $e = 10^{6-3} = 10^3$

f)  $f = 10^{6-1} = 10^5$