

Important questions on Unit One ?

Algebra and Statistics

First Multiple choice questions

- 1 $\left(-1\frac{1}{4}\right)^3 = \dots\dots\dots$
 (a) $\frac{125}{64}$ (b) $-\frac{125}{64}$ (c) $\frac{25}{16}$ (d) $-\frac{1}{64}$

- 2 $\left(-\frac{2}{3}\right)^{-3} = \dots\dots\dots$
 (a) $-\frac{8}{27}$ (b) $-\frac{27}{8}$ (c) $\frac{8}{27}$ (d) $\frac{27}{8}$

- 3 If $(x)^{-1} = 2$, then $x = \dots\dots\dots$
 (a) -2 (b) ± 2 (c) $-\frac{1}{2}$ (d) $\frac{1}{2}$

- 4 The greatest value of $\left(\frac{1}{5}\right)^x$ when $x = \dots\dots\dots$
 (a) zero (b) 1 (c) 2 (d) 3

- 5 If $a = -3$, $b = 5$, then $\left(\frac{a}{b}\right)^2 = \dots\dots\dots$
 (a) $-\frac{9}{25}$ (b) $-\frac{25}{9}$ (c) $\frac{9}{25}$ (d) $\frac{25}{9}$

- 6 The multiplicative inverse of the number $(-3)^{\text{zero}}$ is $\dots\dots\dots$
 (a) 3 (b) 3 (c) -1 (d) 1

- 7 The multiplicative inverse of the number $\sqrt{6\frac{1}{4}}$ is $\dots\dots\dots$
 (a) $-\frac{5}{2}$ (b) $\frac{5}{2}$ (c) $\frac{2}{5}$ (d) $-\frac{2}{5}$

- 8 The additive inverse of the number $\left(-\frac{2}{3}\right)^4$ is $\dots\dots\dots$
 (a) $\frac{2}{3}$ (b) $-\frac{16}{81}$ (c) $\frac{81}{16}$ (d) $-\frac{81}{16}$

- 9 $\left(\frac{a}{b}\right)^3 \times \frac{b^3}{a^3} = \dots\dots\dots$ (Where $a \neq \text{zero}$, $b \neq \text{zero}$)
 (a) ab (b) $\left(\frac{a}{b}\right)^6$ (c) $(ab)^{\text{zero}}$ (d) $\frac{a}{b}$

- 10 If $2^x = 5$, then $2^{x+1} = \dots\dots\dots$
 (a) 6 (b) 7 (c) 10 (d) 64

- 11 $a^{-4} \div a^{-6} = \dots\dots\dots$ (Where $a \neq \text{zero}$)
 (a) a^{-10} (b) a^{-2} (c) a^2 (d) a^{10}

- 12 $3^{10} + 3^{10} + 3^{10} = \dots\dots\dots$
 (a) 3^{11} (b) 3^{30} (c) 9^{10} (d) 9^{30}
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- 13 Half the number $2^{20} = \dots\dots\dots$
 (a) 2^{18} (b) 2^{19} (c) 2^4 (d) 2^5
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- 14 The number which is in standard form from the following is $\dots\dots\dots$
 (a) 11×10^8 (b) 9.7×10^{-5} (c) 10.2×10^{-2} (d) 0.87×10^8
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- 15 If $0.00049 = 4.9 \times 10^n$, then $n = \dots\dots\dots$
 (a) 4 (b) -4 (c) 5 (d) -5
-
- 16 If $6300000 = 6.3 \times 10^n$, then $n = \dots\dots\dots$
 (a) 6 (b) -6 (c) 5 (d) -5
-
- 17 The standard form of the number 53700 is $5.37 \times \dots\dots\dots$
 (a) 10^3 (b) 10^4 (c) 10^{-4} (d) 10^{-3}
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- 18 Which of the following is the smallest ?
 (a) 314×10^3 (b) 3.14×10^4 (c) 31.4×10^5 (d) 0.314×10^6
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- 19 Which of the following is the greatest ?
 (a) 2.3×10^7 (b) 3.2×10^7 (c) 7.6×10^6 (d) 6.7×10^6
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- 20 If the thickness of a paper is 0.012 cm., which of the following is the height of a ream of 400 sheets ?
 (a) (48×10^{-3}) cm. (b) (48×10^{-2}) cm.
 (c) $(4.8 \times 10^{\text{zero}})$ cm. (d) 48 cm.
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- 21 The standard form of the number 750×10^{-6} is $\dots\dots\dots$
 (a) 7.5×10^{-8} (b) 7.5×10^{-7} (c) 7.5×10^{-4} (d) 7.5×10^4
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- 22 Which of the following equals $\frac{1}{4}$ million ?
 (a) 25×10^5 (b) 0.25×10^5 (c) 0.25×10^6 (d) 0.25×10^7
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- 23 If $400000 = 4 \times 10^n$, then $n = \dots\dots\dots$
 (a) 6 (b) 5 (c) -5 (d) -6
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- 24 $2.73 \times 10^{-4} = \dots\dots\dots$
 (a) 0.00237 (b) 0.000237 (c) 23700 (d) 0.0000237