

# CXC (CSEC) MATHEMATICS MAY 2011 BOOTCAMPS

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## ASSIGNMENT 1

### Numbers, Computation, Consumer Arithmetic

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PAPER 2 (Structured)
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#1 – June 2008 # 2, 4a	#6 – June 2003 # 2, 3a, 9a	#11 – January 2009 #1
#2 – June 2007 # 2, 3a	#7 – June 2002 # 2, 4a	#12 – January 2008 #1
#3 – June 2006 # 2, 3b	#8 – June 2001 # 2, 3a, 3c	#13 – January 2007 #1
#4 – June 2005 # 2, 3a	#9 – June 2000 # 2, 3	
#5 – June 2004 # 2, 3a	#10 – June 1999 # 2, 3a	

PAPER 1 (Multiple Choices)
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- Written in scientific notation,  $0.045 \times 10^{-3}$  is
  - $4.5 \times 10^{-6}$
  - $4.5 \times 10^{-5}$
  - $4.5 \times 10^{-4}$
  - $4.5 \times 10^{-1}$
- What percentage of 30 is 6?
  - 5%
  - 18%
  - 20%
  - 150%
- What is the value of the digit 2 in the number 48.621?
  - $\frac{2}{100}$
  - $\frac{2}{10}$
  - 2
  - 200
- $18.96 \times 2.03$  correct to two significant figures equals
  - 0.38
  - 38
  - 38.10
  - 380

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5.  $11.1 \div 0.01$  equals
- (A) 110  
(B) 111  
(C) 1 100  
(D) 1 110
6. In scientific notation, 170.04 is written as
- (A)  $0.17004 \times 10^3$   
(B)  $1.7004 \times 10^2$   
(C)  $17.004 \times 10^1$   
(D)  $1.7004 \times 10^{-1}$
7. The number 3.14063 written correct to 3 decimal places is
- (A) 3.140  
(B) 3.141  
(C) 3.146  
(D) 3.150
8. Express 0.12 as a fraction in its LOWEST terms
- (A)  $\frac{1}{8}$   
(B)  $\frac{1}{9}$   
(C)  $\frac{3}{25}$   
(D)  $\frac{6}{50}$
9. The EXACT value of  $\frac{37.26 \div 1.8}{1\ 000}$  is
- (A) 0.207  
(B) 0.0207  
(C) 20.7000  
(D) 20 700
10. What is the value of the digit 3 in the number 2341?
- (A) 3  
(B) 30  
(C) 300  
(D) 3 000
11. What is the HIGHEST common factor of the set of numbers {54, 72, 90}?
- (A) 9  
(B) 18  
(C) 90  
(D) 1080
12.  $25 \times 130$  is the same as
- (A)  $(25 \times 100) + 30$   
(B)  $(25 + 30) \times 100$   
(C)  $(25 \times 30) + (25 \times 100)$   
(D)  $(100 \times 30) + (100 \times 25)$

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13. The LARGEST prime number that is less than 100 is
- (A) 91  
(B) 93  
(C) 97  
(D) 99
14. If the simple interest on \$800 for 3 years is \$54, what is the rate of interest per annum?
- (A) 44%  
(B) 5%  
(C)  $2\frac{1}{4}\%$   
(D)  $\frac{4}{9}\%$
15.  $3\frac{1}{4}\%$  of \$500 is
- (A) \$ 1.62  
(B) \$15.52  
(C) \$16.00  
(D) \$16.25
16. A television set costs \$350 cash. When bought on hire-purchase, a deposit of \$35 is required, followed by 12 monthly payments of \$30. How much is saved by paying cash?
- (A) \$10  
(B) \$25  
(C) \$40  
(D) \$45
17. How much does a customer pay for an article marked at \$50.00 if a sales tax of 6% is charged?
- (A) \$44.00  
(B) \$47.00  
(C) \$53.00  
(D) \$56.00
18. If \$7000 is borrowed at the rate of 5% per annum for 3 years, the simple interest is
- (A) \$ 105  
(B) \$ 210  
(C) \$ 370  
(D) \$1050
19. If the sale of an article resulted in a loss of 20 per cent on the cost price, then the cost price as a percentage of the selling price is
- (A) 75%  
(B) 80%  
(C) 120%  
(D) 125%
20. A salesman sells a car for \$11 000. If he is paid a commission of 4.5% for the first \$10 000 and 7.5% on the remainder, then the commission he receives is
- (A) \$ 495  
(B) \$ 525  
(C) \$ 825  
(D) \$1 320

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21. A loan of \$8 000 was paid back in 2 years in monthly payments of \$400.00. The percentage profit on the loan was
- (A) 5%  
(B)  $8\frac{1}{3}\%$   
(C)  $16\frac{2}{3}\%$   
(D) 20%
22.  $(-3)^2 + (-2)^2 =$
- (A) -13  
(B) -10  
(C) 13  
(D) 25
23. How many centimetres are there in 1.5 metres?
- (A) 0.015  
(B) 15  
(C) 150  
(D) 1500
24. Express  $4\frac{3}{8}$  as a decimal correct to 3 significant figures
- (A) 4.30  
(B) 4.37  
(C) 4.38  
(D) 4.40
25. 3076 in standard form is
- (A)  $3.076 \times 10^{-3}$   
(B)  $3.076 \times 10^{-2}$   
(C)  $3.076 \times 10^2$   
(D)  $3.076 \times 10^3$
26. If 60% of a number is 90, what is the number?
- (A) 30  
(B) 54  
(C) 150  
(D) 180
27. The H.C.F. of 12, 15 and 60 is
- (A) 1  
(B) 3  
(C) 12  
(D) 60
28.  $(\frac{1}{2})^3$  is the same as
- (A)  $-\frac{1}{8}$   
(B)  $-\frac{1}{6}$   
(C)  $\frac{1}{8}$   
(D)  $\frac{1}{6}$

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29. If  $3n$  is an odd number, which of the following is an even number?

(A)  $3n + 2n$   
(B)  $3n + 2$   
(C)  $3n - 2$   
(D)  $3n - 1$

30. The next term in the sequence

1, 6, 13, 22, 33 is

(A) 44  
(B) 45  
(C) 46  
(D) 52

31. If TTS\$6.00 is equivalent to US\$1.00, then TTS\$15.00 in U.S. dollars is

(A) \$0.25  
(B) \$0.40  
(C) \$2.50  
(D) \$4.00

32. During a sale, a shop allows 20% discount off the marked price of clothing. What will a customer pay for a dress with a marked price of \$30?

(A) \$10  
(B) \$20  
(C) \$24  
(D) \$30

Item 33 refers to the table below.

House Insurance	50¢ per \$100
Contents Insurance	25¢ per \$100

33. The above table shows the rates charged by an insurance company. How much will a person pay for his insurance, if his house is valued at \$50 000, and the contents at \$10 000?

(A) \$225  
(B) \$275  
(C) \$450  
(D) \$500

34. How much does a customer pay for an article marked at \$50.00 if a sales tax of 6% is charged?

(A) \$44.00  
(B) \$47.00  
(C) \$53.00  
(D) \$56.00

35. A company employs 12 gardeners at \$26 per day, and 8 clerks at \$17 per day. What is the mean daily wage, in dollars, of the 20 employees?

(A) \$20.00  
(B) \$21.50  
(C) \$22.40  
(D) \$31.50

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36. A man pays 60 cents for every  $200 \text{ m}^3$  of gas used, plus a fixed charge of \$13.75. How much does he pay when he uses  $55\,000 \text{ m}^3$  of gas?

(A) \$151.25  
(B) \$165.00  
(C) \$175.25  
(D) \$178.75

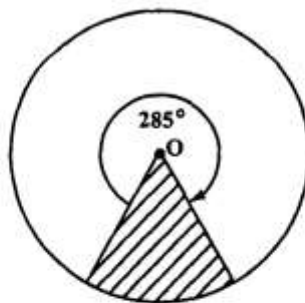
37.  $5\frac{2}{5} + 4\frac{3}{7} =$

(A)  $9\frac{5}{35}$   
(B)  $9\frac{6}{35}$   
(C)  $9\frac{12}{35}$   
(D)  $9\frac{29}{35}$

38. What percentage of 340 is 425?

(A) 80%  
(B) 85%  
(C) 125%  
(D) 152%

- Item 39 refers to the following diagram.



39. The fraction of the circle which has been shaded is

(A)  $\frac{5}{24}$   
(B)  $\frac{8}{24}$   
(C)  $\frac{15}{24}$   
(D)  $\frac{19}{24}$

40. There are 40 students in a class. Girls make up 60% of the class. 25% of the girls wear glasses. How many girls in the class wear glasses?

(A) 6  
(B) 8  
(C) 10  
(D) 15

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41. If \$560 is shared in the ratio 2 : 3 : 9, the difference between the largest and the smallest shares is
- (A) \$ 80  
(B) \$240  
(C) \$280  
(D) \$360
42. What is the HIGHEST common factor of the set of numbers {54, 72, 90}?
- (A) 9  
(B) 18  
(C) 90  
(D) 1080
43. 301 can be written as
- (A)  $3 \times 10^2 + 1$   
(B)  $3 \times 10^3 + 1$   
(C)  $3 \times 10^2 + 1 \times 10$   
(D)  $3 \times 10^3 + 1 \times 10$
44. By the distributive law,  
 $49 \times 17 + 49 \times 3 =$
- (A)  $49 + 20$   
(B)  $52 + 66$   
(C)  $49 \times 20$   
(D)  $52 \times 66$
45. If  $p$  sweets are sold for  $q$  cents, then one sweet is sold for
- (A)  $\frac{p}{q}$  cents  
(B)  $pq$  cents  
(C)  $\frac{q}{p}$  cents  
(D)  $(q - p)$  cents
46.  $3\frac{1}{4}\%$  of \$500 is
- (A) \$ 1.62  
(B) \$15.52  
(C) \$16.00  
(D) \$16.25
47. Susan bought a calculator for \$120. She had to pay a sales tax of 10% on the price. How much change would she receive from \$140?
- (A) \$ 8.00  
(B) \$12.00  
(C) \$28.00  
(D) \$32.00

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48. \$600 invested at simple interest for 2 years earns \$96. What is the rate of interest per annum?
- (A)  $\frac{1}{8}\%$
- (B)  $3\frac{1}{8}\%$
- (C) 8%
- (D)  $12\frac{1}{2}\%$
49. A plot of land is valued at \$18 000. Land tax is charged at the rate of \$0.70 per \$100 value. What is the TOTAL amount of tax paid for the land?
- (A) \$110.00
- (B) \$126.00
- (C) \$180.70
- (D) \$257.15
50. A customer buys a table on hire purchase. He makes a deposit of \$306 and pays six monthly instalments of \$60 each. The TOTAL cost to the customer is
- (A) \$360
- (B) \$366
- (C) \$666
- (D) \$966
51. The H.C.F. of 12, 15 and 60 is
- (A) 1
- (B) 3
- (C) 12
- (D) 60
52. 0.875 written as a common fraction is
- (A)  $\frac{1}{4}$
- (B)  $\frac{1}{2}$
- (C)  $\frac{3}{4}$
- (D)  $\frac{7}{8}$
53. The exact value of  $2 + (0.01)^2$  is
- (A) 0.0002
- (B) 0.0005
- (C) 5000
- (D) 20000
54.  $0.386 \times 0.06 =$
- (A) 0.02316
- (B) 0.2316
- (C) 2.313
- (D) 23.16



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55. If \$350 is divided into two portions in the ratio 2:5, the smaller portion is
- (A) \$70  
(B) \$100  
(C) \$175  
(D) \$250
56. If 60% of a number is 90, what is the number?
- (A) 30  
(B) 54  
(C) 150  
(D) 180
57. The value of the digit 2 in 425.3 is
- (A) 2 tenths  
(B) 2 ones  
(C) 2 tens  
(D) 2 hundreds
58.  $99 \times 101$  has the same value as
- (A)  $(99 \times 100) + 1$   
(B)  $(99 \times 100) - (99 \times 1)$   
(C)  $(99 \times 100) + (99 \times 1)$   
(D)  $(99 \times 100)(99 \times 1)$
59. What is the least number of plums that can be shared equally among 6, 9 or 12 children?
- (A) 27  
(B) 36  
(C) 54  
(D) 72
60. How much does a customer pay for an article marked at \$50.00 if a sales tax of 6% is charged?
- (A) \$56.00  
(B) \$53.00  
(C) \$47.00  
(D) \$44.00
61. A man bought a calf for \$200 and sold it for \$250. What was his gain as a percentage of the cost price?
- (A) 5%  
(B) 15%  
(C) 20%  
(D) 25%
62. The sum of  $\frac{1}{2}$  and  $\frac{1}{3}$  is
- (A)  $\frac{2}{5}$   
(B)  $\frac{3}{5}$   
(C)  $\frac{5}{6}$   
(D)  $\frac{7}{6}$

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63. The exchange rate for one United States dollar (US\$1.00) is two dollars and seventy cents in Eastern Caribbean currency (EC\$2.70). What is the value of US\$4.50 in EC currency?
- (A) \$ 1.67  
(B) \$ 6.00  
(C) \$ 7.20  
(D) \$12.15
64. If the simple interest on \$800 for 3 years is \$54, what is the rate of interest per annum?
- (A) 44%  
(B) 5%  
(C)  $2\frac{1}{4}\%$   
(D)  $\frac{4}{9}\%$
65. Mary invested \$200 for 3 years at 5% per annum. John invested \$300 at the same rate. If they both received the same amount of money in interest, for how many years did John invest his money?
- (A)  $1\frac{1}{2}$   
(B) 2  
(C) 3  
(D) 10
66. The cost price of a refrigerator is \$1850.00. A buyer who is given a discount of 5% for cash purchase will pay
- (A) \$1942.50  
(B) \$1845.00  
(C) \$1757.50  
(D) \$1350.00
67. The simple interest on \$400 at 5% per annum for 2 years is given by
- (A)  $\$ \frac{400 \times 5 \times 2}{100}$   
(B)  $\$ \frac{400 \times 5}{2 \times 100}$   
(C)  $\$ \frac{400 \times 2}{5 \times 100}$   
(D)  $\$ \frac{400 \times 100}{2 \times 5}$
68. 0.45 may be written as
- (A)  $\frac{9}{20}$   
(B)  $\frac{4}{5}$   
(C)  $\frac{9}{10}$   
(D)  $\frac{5}{4}$

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69. How many centimetres are there in 1.5 metres?
- (A) 0.015  
(B) 15  
(C) 150  
(D) 1 500
70. \$350 is shared in the ratio 2:5. The LARGER share is
- (A) \$ 70  
(B) \$100  
(C) \$175  
(D) \$250
71. If  $12\frac{1}{2}\%$  of a sum of money is \$40.00, then the sum of money is
- (A) \$ 5.00  
(B) \$ 45.00  
(C) \$320.00  
(D) \$500.00
72.  $\frac{3}{100}$  is the same value as
- (A) 0.3%  
(B) 3%  
(C) 0.3%  
(D) 0.03%
73. The LARGEST prime number that is SMALLER than 100 is
- (A) 91  
(B) 93  
(C) 97  
(D) 99
74. The next term in the sequence 1, 6, 13, 22, 33 is
- (A) 44  
(B) 45  
(C) 46  
(D) 52
75.  $P = \{52, 77, 91, 124, 217\}$
- Three members of the set  $P$  have a COMMON factor which is
- (A) 4  
(B) 7  
(C) 13  
(D) 31
76. Which of the following expressions does NOT have the same value as  $49 \times 20$ ?
- (A)  $40 + 20 \times 9 + 20$   
(B)  $49 \times 17 + 3 \times 49$   
(C)  $50 \times 20 - 1 \times 20$   
(D)  $40 \times 20 + 9 \times 20$
77. By selling an article for \$96 a profit of \$16 was made on the cost price. The profit as a percentage of the cost price is
- (A) 16%  
(B) 17%  
(C) 20%  
(D) 25%

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78. \$75 invested for 6 months yielded simple interest of \$2.00. What was the rate of interest?
- (A)  $\frac{1}{3}\%$   
(B)  $\frac{4}{9}\%$   
(C)  $\frac{4}{3}\%$   
(D)  $\frac{16}{3}\%$
79. A shopkeeper bought an article for \$50. He sold it and gained 20% profit. How many dollars did he gain?
- (A) \$ 10  
(B) \$ 25  
(C) \$ 60  
(D) \$100
80. A toy was sold for \$24.00, at a profit of 20%. The cost price was
- (A) \$ 4.00  
(B) \$19.20  
(C) \$20.00  
(D) \$28.00
81. If  $15^2 = 225$  then the square root of 0.0225 is
- (A) 0.015  
(B) 0.15  
(C) 1.5  
(D) 15.0
82. 0.45 written as a common fraction, in its simplest form, is
- (A)  $\frac{9}{20}$   
(B)  $\frac{4}{5}$   
(C)  $\frac{9}{10}$   
(D)  $\frac{5}{4}$
83. 25 387 written as a number correct to 4 significant figures is
- (A) 25 000  
(B) 25 300  
(C) 25 380  
(D) 25 390
84. Eighty millimetres as a percentage of one metre is
- (A) 8  
(B) 80  
(C) 800  
(D) 8000
- Item 85 refers to the chart below.
- |                    |               |
|--------------------|---------------|
| House Insurance    | 25¢ per \$100 |
| Contents Insurance | 50¢ per \$100 |
85. What is the total cost for house insurance of \$50 000, and contents insurance of \$10 000?
- (A) \$175  
(B) \$225  
(C) \$450  
(D) \$500

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86. Since  $235 \times 48.7 = 11\,444.5$ , then  $23.5 \times 0.487 =$
- (A) 11.4445  
(B) 114.445  
(C) 1 144.45  
(D) 11 444.4
87. The Highest Common Factor of 18, 24 and 36 is
- (A) 6  
(B) 18  
(C) 36  
(D) 72
88. By the distributive law,  $49 \times 17 + 49 \times 3 =$
- (A)  $49 + 20$   
(B)  $52 + 66$   
(C)  $49 \times 20$   
(D)  $52 \times 66$
89. A man's annual income is \$45 000. His tax-free allowances total \$13 000. He has to pay a tax of 30% on his taxable income. The tax payable is
- (A) \$ 3 900.00  
(B) \$ 9 600.00  
(C) \$13 500.00  
(D) \$17 400.00
90. The overtime rate of pay which is one-and-a-half times the basic rate of \$12 per hour is
- (A) \$18  
(B) \$36  
(C) \$54  
(D) \$72
91. \$75.00 is shared among 3 people in the ratio 2:4:9. How much is the **LARGEST** share?
- (A) \$15.00  
(B) \$25.00  
(C) \$35.00  
(D) \$45.00
92. For his electricity, Mr Jones pays a fixed charge of \$12.50. He also pays 50 cents for each Kwh of electricity used. How much did he pay for using 75 Kwh of electricity.
- (A) \$30.00  
(B) \$37.50  
(C) \$50.00  
(D) \$87.50
93. Mr Duncan bought a table at a discount of 30% off the marked price, thus saving \$42. What was the marked price of the table?
- (A) \$ 98  
(B) \$110  
(C) \$140  
(D) \$182
94. The cash price of a tyre is \$90. This results from a discount of 25 per cent on the marked price. What is the marked price?
- (A) \$ 67.50  
(B) \$112.50  
(C) \$120.00  
(D) \$135.00
95. Each dress in a store was marked \$3.00 off the original price. A woman paid \$46.00 for 2 dresses that had the same sale price. What was the original price of one dress?
- (A) \$20.00  
(B) \$21.50  
(C) \$24.50  
(D) \$26.00
96. What is 5% of \$40?
- (A) \$ 2  
(B) \$ 8  
(C) \$20  
(D) \$35

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97.  $\frac{3}{5}$  of 35 =
- (A) 21  
(B) 7  
(C) 14  
(D) 12
98. 0.75 written as a fraction is
- (A)  $\frac{1}{4}$   
(B)  $\frac{1}{2}$   
(C)  $\frac{3}{4}$   
(D)  $\frac{7}{8}$
99. The first three common multiples of 3, 4 and 6 are:
- (A) 3, 4, 6  
(B) 0, 1, 2  
(C) 12, 24, 36  
(D) 6, 8, 12
100. Let  $n$  be an even number, then the next even number greater than  $n$  is:
- (A)  $2n$   
(B)  $n - 2$   
(C)  $n + 2$   
(D)  $\frac{n}{2}$
101. Two numbers are in the ratio 4:5. The smaller number is 240. What is the larger number?
- (A) 133  
(B) 192  
(C) 300  
(D) 720
102. The number 0.0325 in standard form is
- (A)  $3.25 \times 10^{-4}$   
(B)  $3.25 \times 10^{-3}$   
(C)  $3.25 \times 10^{-2}$   
(D)  $3.25 \times 10^{-1}$
103. If  $3n$  is an odd number, which of the following is an even number?
- (A)  $3n - 2$   
(B)  $3n - 1$   
(C)  $3n + 2$   
(D)  $3n + 2n$
104. If US \$1.00 = EC \$2.70, what is the value of US \$4.50 in EC currency?
- (A) \$ 1.67  
(B) \$ 6.00  
(C) \$ 7.20  
(D) \$12.15
105. A man bought a goat for \$400 and sold it for \$500. His percentage profit was
- (A) 10%  
(B) 20%  
(C) 25%  
(D) 80%

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106. A dress which costs \$180 is sold at a discount of 10%. The discount is
- (A) \$ 1.80  
(B) \$ 10.00  
(C) \$ 18.00  
(D) \$170.00
107. Mrs. Lee's salary is increased from \$1500 to \$2000. The initial salary expressed as a fraction of the new salary is
- (A)  $\frac{1}{4}$   
(B)  $\frac{1}{3}$   
(C)  $\frac{3}{4}$   
(D)  $\frac{4}{3}$
108.  $29.94 \times 0.5$  is approximately
- (A) 0.15  
(B) 1.5  
(C) 15  
(D) 150
109. The Simple Interest on \$560 for 3 years at  $12\frac{1}{2}\%$  per annum is
- (A) \$ 70  
(B) \$210  
(C) \$630  
(D) \$770
110. When the basic rate of pay is 36 cents, the overtime rate of pay at "time and a half" is
- (A) 18 cents  
(B) 36 cents  
(C) 54 cents  
(D) 72 cents
111. An article costs \$1 424. It may be purchased by depositing \$560 and making monthly payments of \$48. How many months are required to complete payment?
- (A) 18  
(B) 24  
(C) 30  
(D) 36
112. The city government charges 5% property tax on the annual rental value of any property. What is the tax payable on a property which has a rental value of \$135 per month?
- (A) \$ 27.00  
(B) \$ 81.00  
(C) \$128.00  
(D) \$141.00
113. A man's annual salary is \$45 000. His tax-free allowances total \$13 000. He has to pay a tax of 35% on his taxable income. The tax payable is
- (A)  $\$ \frac{35 \times 13\ 000}{100}$   
(B)  $\$ \frac{35 \times 45\ 000}{100}$   
(C)  $\$ \left( \frac{35 \times 45\ 000}{100} - 13\ 000 \right)$   
(D)  $\$ \frac{35 \times (45\ 000 - 13\ 000)}{100}$

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114. Which of the following is a prime number?
- (A) 252  
(B) 255  
(C) 257  
(D) 261
115. 0.75 written as a common fraction is
- (A)  $\frac{1}{4}$   
(B)  $\frac{1}{2}$   
(C)  $\frac{3}{4}$   
(D)  $\frac{7}{8}$
116. The overtime rate of pay at "time and a half" corresponding to a flat rate of 36 cents is
- (A) 18 cents  
(B) 36 cents  
(C) 54 cents  
(D) 72 cents
117. Ann and Betty shared a sum of money in the ratio 2 : 3 respectively. Ann received \$120. What was Betty's share?
- (A) \$ 72  
(B) \$ 80  
(C) \$180  
(D) \$300
118. An electrician charges \$7.00 as a fixed charge for house visits, plus \$4.00 per hour for repair jobs. If he charges a housewife \$42.00 for repair work done at her house, how many hours did he work?
- (A)  $5\frac{3}{7}$   
(B)  $6\frac{9}{20}$   
(C)  $8\frac{3}{4}$   
(D)  $10\frac{1}{2}$
119. A sales tax of 7.5% is to be charged on a bill of \$200. The sales tax is
- (A) \$ 15.00  
(B) \$185.00  
(C) \$192.50  
(D) \$207.50
120.  $12\frac{1}{2}\%$  of a sum of money is \$40. What is the sum of money?
- (A) \$ 45  
(B) \$ 320  
(C) \$ 500  
(D) \$4 500
121.  $\sqrt{8.2} = 2.86$ ,  
What is  $\sqrt{8.2 \times 10^2}$ ?
- (A)  $1.43 \times 10$   
(B)  $2.86 \times 10$   
(C)  $1.43 \times 10^2$   
(D)  $2.86 \times 10^2$



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122. The highest common factor of 18, 24 and 36 is
- (A) 6  
(B) 18  
(C) 36  
(D) 72
123. A merchant bought eggs at \$2.00 a dozen and sold them at \$2.50 a dozen. His percentage profit was
- (A) 4%  
(B) 20%  
(C) 25%  
(D) 40%
124. A shopkeeper sells a box of candles for \$15.75. If he bought the box for \$11.25, what is his percentage profit?
- (A)  $28\frac{4}{7}\%$   
(B) 40%  
(C) 250%  
(D) 350%
125. A car was bought for \$10 000 in January 1997. If the car depreciates by 10% every year, what is its worth in January 2000.
- (A) \$7 290  
(B) \$8 000  
(C) \$9 000  
(D) \$3 000
126. The simple interest on \$15 000 for three months at 10% per annum is
- (A) \$ 375  
(B) \$ 500  
(C) \$1500  
(D) \$4500
127.  $3.3 \times 2.5 + 5.7 \times 2.5 =$
- (A) 8.25  
(B) 9.00  
(C) 13.25  
(D) 22.50
128.  $0.386 \times 0.06 =$
- (A) 0.02316  
(B) 0.2316  
(C) 2.316  
(D) 23.16
129. During a sale, a shop allows 20% discount on all purchases. What will a customer pay for a dress normally priced at \$30?
- (A) \$10  
(B) \$20  
(C) \$24  
(D) \$30
130. A television set costs \$350 cash. When bought on hire purchase, a deposit of \$35 is required, followed by 12 monthly payments of \$30. How much is saved by paying cash?
- (A) \$10  
(B) \$25  
(C) \$40  
(D) \$45

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131. Three lights flash intervals of 4, 6 and 10 seconds respectively. They are started together. How soon after will they next flash together?
- (A) 40 secs  
(B) 60 secs  
(C) 120 secs  
(D) 140 secs
132. If  $(P - 3)$  is the largest of four consecutive odd numbers, then the smallest is
- (A)  $P + 3$   
(B)  $P + 5$   
(C)  $P - 11$   
(D)  $P - 9$
133. Two dozen articles were bought for \$5.04 and sold at 14 ¢ each. The loss expressed as a percentage of the buying price is
- (A) 2.8%  
(B)  $33\frac{1}{3}\%$   
(C) 50%  
(D) 97.2%
134. The value of 2 in the number 425.3 is
- (A) 2 tenths  
(B) 2 ones  
(C) 2 tens  
(D) 2 hundreds
135. An alloy consists of 4 parts of one metal to 5 parts of another. How much of the first metal should be mixed with 40 kg of the second?
- (A) 32 kg  
(B) 50 kg  
(C) 160 kg  
(D) 200 kg
136. Given that  $2035_n$  is a number in base  $n$  and that  $n \leq 8$ , then a possible values of  $n$  is
- (A) {2, 3, 5}  
(B) {3, 5, 6}  
(C) {4, 6, 7}  
(D) {6, 7, 8}
137. The interest rate on investments in a bank decreased from  $8\frac{1}{2}\%$  per annum to 6% per annum. The difference in annual interest on a deposit of \$2 000 is
- (A) \$ 30  
(B) \$ 50  
(C) \$ 120  
(D) \$ 170
138. The number 0.0325 in standard form is
- (A)  $3.25 \times 10^{-4}$   
(B)  $3.25 \times 10^{-3}$   
(C)  $3.25 \times 10^{-2}$   
(D)  $3.25 \times 10^{-1}$

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139. An article was sold for \$375 at a profit of 25% on the cost price. The cost price
- (A) \$300.00  
(B) \$350.00  
(C) \$400.00  
(D) \$468.75
140. A salesman is paid 5% of his sales as commission. His sales for last month were \$2020. How much commission was he paid?
- (A) \$ 11.00  
(B) \$ 20.20  
(C) \$101.00  
(D) \$110.00
141. The number 3.14063 written correct to 3 decimal places is
- (A) 3.140  
(B) 3.141  
(C) 3.146  
(D) 3.150
142. The sum of \$7000 is borrowed at the rate of 5% per annum. The simple interest at the end of 3 years will be
- (A) \$ 105  
(B) \$ 210  
(C) \$ 310  
(D) \$1050
143. If  $4.3 \times 0.37 = 1.591$ , then  $0.43 \times 370$  is
- (A) 1.591  
(B) 15.91  
(C) 159.1  
(D) 1591.0
144. A woman buys a pair of shoes at a sale. She pays \$60, saving \$15 on the normal price. The percentage discount on the shoes is
- (A) 20  
(B) 25  
(C)  $33\frac{1}{3}$   
(D) 80
145. Tom bought a pen for \$60 and sold it to gain 20% on his cost price. How much money did he gain?
- (A) \$12  
(B) \$40  
(C) \$72  
(D) \$80
146. The price of an article is increased by 20% to a new price was
- (A) \$192  
(B) \$200  
(C) \$216  
(D) \$288

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147. The interest rate on investments in a bank decreased from  $8\frac{1}{2}$  per cent per annum to 6 per cent. The difference in annual interest on deposit of \$2 000 is
- (A) \$ 30  
(B) \$ 50  
(C) \$120  
(D) \$170
148. The first four multiples of 4 are
- (A) 1, 2, 3, 4  
(B) 4, 8, 12, 16  
(C) 4, 16, 64, 256  
(D) 4, 40, 400, 4000
149. If 60% of a number is 90, what is the number?
- (A) 30  
(B) 54  
(C) 150  
(D) 180
150. The simple interest on \$600 for 4 years at 5% per annum is
- (A)  $\$ \frac{100 \times 5}{600 \times 4}$   
(B)  $\$ \frac{600 \times 4}{100 \times 5}$   
(C)  $\$ \frac{100 \times 5 \times 4}{600}$   
(D)  $\$ \frac{600 \times 5 \times 4}{100}$
151.  $6\frac{1}{4}\%$  of \$300 is
- (A) \$ 1.87  
(B) \$ 18.75  
(C) \$ 187.50  
(D) \$1875.00
152. If \$560 is shared in the ratio 2 : 3 : 9, the difference between the largest and smallest shares is
- (A) \$ 80  
(B) \$240  
(C) \$280  
(D) \$360
153. A woman buys a pair of shoes at a sale. She pays \$60, saving \$15 on the shoes is
- (A) 20  
(B) 25  
(C)  $33\frac{1}{3}$   
(D) 80
154. The value of a car depreciated by 5% each year. How much, to the nearest ten dollars, will a car bought for \$5000 be valued after 2 years?
- (A) \$3750  
(B) \$4500  
(C) \$4510  
(D) \$4990

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155. The FIRST three common multiples of 3, 4 and 6 are:
- (A) 3, 4, 6  
(B) 0, 1, 2  
(C) 6, 8, 12  
(D) 12, 24, 36
156.  $-\left(\frac{1}{2}\right)^3$  is the same as
- (A)  $-\frac{1}{8}$   
(B)  $-\frac{1}{6}$   
(C)  $\frac{1}{8}$   
(D)  $\frac{1}{6}$
157. By the distributive law  $49 \times 17 + 49 \times 3 =$
- (A)  $52 + 66$   
(B)  $52 \times 66$   
(C)  $49 + 20$   
(D)  $49 \times 20$
158. What is the value of the digit 2 in the number 48.621?
- (A)  $\frac{2}{100}$   
(B)  $\frac{2}{10}$   
(C) 2  
(D) 200
159. A man's annual salary is \$45 000. His tax-free allowances total \$13 000. He has to pay a tax of 35% on his taxable income. The tax payable is
- (A) \$ 4 550.00  
(B) \$11 200.00  
(C) \$15 750.00  
(D) \$20 300.00
160. A dress which costs \$180 is being sold at a discount of 10%. The amount of the discount is
- (A) \$ 1.80  
(B) \$ 10.00  
(C) \$ 18.00  
(D) \$170.00
161. If the simple interest on \$800 for 3 years is \$54, what is the rate of interest per annum?
- (A)  $\frac{4}{9}\%$   
(B)  $2\frac{1}{4}\%$   
(C) 5%  
(D) 44%
162. Tom bought a pen for \$60 and sold it to gain 20% on his cost price. How much money did he gain?
- (A) \$12  
(B) \$40  
(C) \$72  
(D) \$80

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163. A salesman sells a car for \$11 000. If he is paid a commission of 4.5% for the first \$10 000 and 7.5% on the remainder, then the commission he receives is
- (A) \$ 495  
(B) \$ 525  
(C) \$ 825  
(D) \$1 320
164. A company employs 12 gardeners at \$26 per day, and 8 clerks at \$17 per day. What is the mean daily wage, in dollars, of the 20 employees?
- (A) \$20.00  
(B) \$21.50  
(C) \$22.40  
(D) \$31.50
165. Mary invested \$200 for 3 years at 5% per annum. John invested \$300 at the same rate. If they both received the same amount of money in interest, for how many years did John invest his money?
- (A)  $1\frac{1}{2}$   
(B) 2  
(C) 3  
(D) 10
166. Mr. Duncan bought a table at a discount of 30% thus saving \$42. What was the marked price of the table?
- (A) \$ 98  
(B) \$110  
(C) \$140  
(D) \$182
167. The number 3.14063 written correct to 3 decimal places is
- (A) 3.140  
(B) 3.141  
(C) 3.146  
(D) 3.150
168. Express 0.12 as a fraction in its lowest terms
- (A)  $\frac{1}{9}$   
(B)  $\frac{3}{25}$   
(C)  $\frac{1}{8}$   
(D)  $\frac{6}{50}$
169. What number when added to  $1\frac{1}{3}$  gives 2?
- (A)  $\frac{1}{3}$   
(B)  $\frac{2}{3}$   
(C)  $1\frac{2}{3}$   
(D)  $3\frac{1}{3}$
170. John, Peter and Mary shared a sum of money in the ratio 2 : 4 : 9. John and Peter together received \$360. How much money in all was shared?
- (A) \$480  
(B) \$540  
(C) \$600  
(D) \$900
171.  $25 \times 130$  is the same as
- (A)  $(25 \times 100) + 30$   
(B)  $(25 + 30) \times 100$   
(C)  $(25 \times 30) + (25 \times 100)$   
(D)  $(100 \times 30) + (100 \times 25)$

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172. What is the value of the digit 3 in the number 2341?

- (A) 3
- (B) 30
- (C) 300
- (D) 3 000

173. A woman buys a pair of shoes at a sale. She pays \$60, saving \$15 on the normal price. The percentage discount on the shoes is

- (A) 20
- (B) 25
- (C) 33
- (D) 80

174. A plot of land is valued at \$18 000. Land tax is charged at the rate of \$0.70 per \$100. What is the total amount of tax to be paid for the land?

- (A) \$110.00
- (B) \$126.00
- (C) \$180.70
- (D) \$257.15

175. A television set costs \$350 cash. When bought on hire-purchase, a deposit of \$35 is required, followed by 12 monthly payments of \$30. How much is saved by paying cash?

- (A) \$10
- (B) \$25
- (C) \$40
- (D) \$45

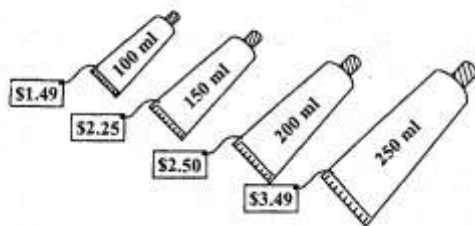
176. A salesman is paid 5% of his sales as commission. His sales for last month were \$2 020. How much commission was he paid?

- (A) \$ 11.00
- (B) \$ 20.20
- (C) \$101.00
- (D) \$110.00

177. How much does a customer pay for an article marked at \$50.00 if a sales tax of 6% is charged?

- (A) \$44.00
- (B) \$47.00
- (C) \$53.00
- (D) \$56.00

Item 22 refers to toothpaste which is sold in four different tubes.



178. Which amount is the best buy?

- (A) 100 ml
- (B) 150 ml
- (C) 200 ml
- (D) 250 ml

179. The exact value of  $6 \div (0.0003)$  is

- (A) 200
- (B) 2 000
- (C) 20 000
- (D) 200 000

180. 0.0346 written in standard form is

- (A)  $3.46 \times 10^2$
- (B)  $3.46 \times 10$
- (C)  $3.46 \times 10^{-1}$
- (D)  $3.46 \times 10^{-2}$

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181.  $\sqrt{17^2 - 15^2}$
- (A) 1  
(B) 2  
(C) 8  
(D) 16
182. Express  $4\frac{3}{8}$  as a decimal correct to 3 significant figures
- (A) 4.30  
(B) 4.37  
(C) 4.38  
(D) 4.40
183. What is the Highest Common Factor of the set of numbers {54, 72, 90}?
- (A) 9  
(B) 18  
(C) 90  
(D) 1080
184. What is the value of the digit 2 in the number 48.621?
- (A)  $\frac{2}{100}$   
(B)  $\frac{2}{10}$   
(C) 2  
(D) 200
185. By the distributive law  $49 \times 17 + 49 \times 3 =$
- (A)  $52 + 66$   
(B)  $52 \times 66$   
(C)  $49 + 20$   
(D)  $49 \times 20$
186. If  $p$  sweets cost  $q$  cents, then the cost of one sweet is
- (A)  $\frac{p}{q}$  cents  
(B)  $pq$  cents  
(C)  $\frac{q}{p}$  cents  
(D)  $(q - p)$  cents
187. A dress which costs \$180 is being sold at a discount of 10%. The amount of the discount is
- (A) \$ 1.80  
(B) \$ 10.00  
(C) \$ 18.00  
(D) \$170.00
188. An article bought for \$125 was sold for \$175. The percentage profit was
- (A) 28.6  
(B) 40  
(C) 50  
(D) 71.4
189. Tom bought a pen for \$60 and sold it to gain 20% on his cost price. How much money did he gain?
- (A) \$12  
(B) \$40  
(C) \$72  
(D) \$80