1. The 180 students in a group are to be seated in rows so that there is an equal number of students in each row. Each of the following could be the number of rows EXCEPT
(A) 4
(B) 20
(C) 30
(D) 40
(E) 90
2. A parking garage rents parking spaces for $\$ 10$ per week or $\$ 30$ per month. How much does a person save in a year by renting by the month rather than by the week?
(A) $\$ 140$
(B) $\$ 160$
(C) $\$ 220$
(D) $\$ 240$
(E) $\$ 260$
3. If $y=5 x^{2}-2 x$ and $x=3$, then $y=$
(A) 24
(B) 27
(C) 39
(D) 51
(E) 219
4. Of the following, which is the best approximation to $\sqrt{0.0026}$ ?
(A) 0.05
(B) 0.06
(C) 0.16
(D) 0.5
(E) 0.6
5. At a certain diner, a hamburger and coleslaw cost $\$ 3.59$, and a hamburger and french fries cost $\$ 4.40$. If french fries cost twice as much as coleslaw, how much do french fries cost?
(A) $\$ 0.30$
(B) $\$ 0.45$
(C) $\$ 0.60$
(D)
(E) $\$ 0,90$

6. If $\angle X Y Z$ in the figure above is a right angle, what is the value of $x$ ?
(A) 155
(B) 145
(C) 135
(D) 125
(E) 110

$$
\frac{\left(\frac{a}{b}\right)}{c}
$$

7. In the expression above, $a, b$, and $c$ are different numbers and each is one of the numbers 2,3 , or 5 . What is the least possible value of the expression?
(A) $\frac{1}{30}$
(B) $\frac{2}{15}$
(C) $\frac{1}{6}$
(D) $\frac{3}{10}$
(E) $\frac{5}{6}$
8. A certain culture of bacteria quadruples every hour. If a contaher with these bacteria was half full at 10:00 a.m., at what time was it one-eighth full?
(A) 9:00 a.m.
(B) 7:00 a.m.
(C) 6:00 a.m.
(D) 4:00 a.m.
(E) 2:00 a.m. the gift and Lew contribu ed $\$ 2$ more $\frac{1}{4}$ of the cost. If Karen contributed the remaining $\$ 15$, what was the cost of the gift?
(A) $\$ 24$
(B) $\$ 33$
(C) $\$ 36$
(D)
(E) $\$ 4$

(B) 32
(C) 31
(D) 30
(E) 29
9. Which of the following inequalities is equivalent to $10-2 x>18$ ?
(A) $x>-14$
(B) $x>-4$
(C) $x>4$
(D) $x<4$
(E) $x<-4$
10. In 1979 approximately $\frac{1}{3}$ of the 37.3 million airline passengers traveling to or from the United States us Kennedy Airport. If the number of such passengers that used Miami Airport was $\frac{1}{2}$ the number that use Kennedy Airport and 4 times the number that used Logan Airport, approximately how many millions of these passengers used Logan Airport that year?
(A) 18.6
(B) 9.3
(C) 6.2
(D) 3.1
(E) 1.6
11. A certain basketball team that has played $\frac{2}{3}$ of its games has a record of 18 wins and 3 losses. What is the greatest number of the remaining games that the team can lo and still yinat least $\frac{3}{4}$ of all of its games?
(A) 7
(B) 6
(C) 5
(D) 4
(E) 3
12. Dan and Karen, who live 10 miles apart meet at a dafe that is directly north of Dan’s house and directly east of Karen's house. If the cafe is 2 miles closer to Dan's house than to Karen's house, how many miles is the cafe from Karen's house?
(A) 6
(B) 7
(C) 8
(D) 9
(E) 10

(B) 360.000
(C) 364.500
(D) 392.000
(E) 396.900
13. In the formula $w=\frac{p}{\sqrt[t]{v}}$, integers $p$ and $t$ are positive constants. If $w=2$ when $v=1$ and if $w=\frac{1}{2}$ when $y$ 64 , then $t=$
(A) 1
(B) 2
(C) 3
(D) 4
(E) 16

14. Last year Mrs. Long received $\$ 160$ in dividends on her shares of Company $X$ stock, all gf which she had held for the entire year. If she had had 12 more shares of the stock last year, she would have received $\$ 15$ more in total annual dividends. How many shares of the stock did she ha
(A) 128
(B) 140
(C) 172
(D) 175
(E) 200

15. The table above shows the average (arithmetic mean) price per dozen of the large grade A eggs sold in a certain store during three successive months. If $\frac{2}{3}$ as many dozen were sold in April as in May, and twice as many were sold in June as in April, what was the average price per dozen of the eggs sold over the threemonth period?
(A) $\$ 1.08$
(B) $\$ 1.10$
(C)
(D) $\$ 1.16$
16. af $x<3$ and $\frac{3 x}{y}$ is a prime integer greater than 2 , which of the following must be true?
I. $x=y$
II. $y=1$
III. $x$ and $y$ are prime integers.
(A) None
(B) I only
(C) II only
(D) IIIonly
(E) I and III

Answers:

1. D
2. B
3. C
4. A
5. E
6. B
7. B
8. A
9. C
10. A
11. E
12. E
13. D
14. C
15. B
16. C
17. C
18. A
19. D
20. A
