Sample Documents

SAT Math Prep
(SAT)

EducAide Software
1. It takes a painter 4 hours to paint a room. How many hours would it take 3 painters to paint a room 2 times larger?

(A) 2  (B) 2\(\frac{2}{3}\)  (C) 3  (D) 4\(\frac{1}{3}\)  (E) 6

2. If \(P\) and \(Q\) are numbers on the number line, which of the points shown best represents \(2P + Q\)?

(A) \(A\)  (B) \(B\)  (C) \(C\)  (D) \(D\)  (E) \(E\)

3. Two conveyors feed coal to a furnace. Conveyor A feeds 3 pounds of coal per minute and conveyor B feeds 5 pounds of coal every two minutes. How many minutes does it take both conveyors to feed 99 pounds of coal into the furnace?

(A) 9  (B) 11  (C) 15  (D) 18  (E) 21

4. In a coordinate graph system, a circle is drawn whose center is at the origin and whose radius is 5. All of the points described by the following coordinates will fall within the circle except

(A) \((-3, -3)\)  (B) \((-2, -3)\)  (C) \((3, 3)\)
(D) \((2, -4)\)  (E) \((1, 5)\)

5. According to the graph, what percent of auto sales for the week shown were made on Thursday and Friday?

(A) 30%  (B) 40%  (C) 45%
(D) 50%  (E) 55%
6. Of the following numbers, the one which can be written in the form $3N$, where $N$ is an integer, is

(A) 44  (B) 4,444  (C) 44,444  
(D) 444,444  (E) 4,444,444

7. In the figure, if the area of the rectangle is equal to the area of the triangle, then $h = \frac{3 \times 8}{12}$.

(A) 1  (B) 2  (C) 3  (D) 4  (E) 5

8. In a bag, there are $b$ brown pencils, $g$ green pencils, and $y$ yellow pencils. If a person selects a pencil at random from the bag, what is the probability that it is brown or green?

(A) $\frac{b+g}{b+g+y}$  (B) $\frac{y}{b+g+y}$  (C) $\frac{1}{b+g}$  
(D) $\frac{b+g}{y}$  (E) $\frac{y}{b+g}$

9. In the circle graph shown, the 4 sections represent the number of fish in a hatchery pond. If there are 1200 sunfish, 800 bass, and 2400 catfish in this lake and arc $PQ$ measures 45°, then how many perch are in this lake?

(A) 3,600  (B) 2,000  (C) 2,200  
(D) 3,000  (E) 1,800

10. If $\begin{vmatrix} a & b \\ c & d \end{vmatrix} = ad - bc$, then if $\begin{vmatrix} 2 & x \\ 3 & 5 \end{vmatrix} = \begin{vmatrix} x & 2 \\ 1 & 1 \end{vmatrix}$, $x =$

(A) -3  (B) 1  (C) 0  (D) 3  (E) 4
Answer List

1. B
2. D
3. D
4. E
5. E
6. D
7. D
8. A
9. B
10. D

Catalog List

1. SAT AD 20
2. SAT CH 10
3. SAT BF 77
4. SAT CI 28
5. SAT ED 16
6. SAT DD 6
7. SAT CK 57
8. SAT EC 2
9. SAT ED 14
10. SAT DF 14
1. According to the formula \( F = \frac{9}{5}C + 32 \), if the Fahrenheit (\( F \)) temperature increased 45 degrees, by how many degrees would the Celsius (\( C \)) temperature be increased?

2. In hexagon \( ABCDEF \), \( \overline{AB} \perp \overline{BC} \).

\[ m\angle A + m\angle F + m\angle E + m\angle D + m\angle C = \]

3. Employees in a certain company are each assigned a 4-digit identification number so that no two employees receive the same number and no number begins with a zero. What is the greatest number of employees that can be assigned an identification number?

4. The table shows the percent correct Sherry received on each of five 40-question tests. How many questions total did Sherry answer correctly on the five tests?

<table>
<thead>
<tr>
<th>Test No.</th>
<th>% Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>70%</td>
</tr>
<tr>
<td>2</td>
<td>80%</td>
</tr>
<tr>
<td>3</td>
<td>75%</td>
</tr>
<tr>
<td>4</td>
<td>85%</td>
</tr>
<tr>
<td>5</td>
<td>95%</td>
</tr>
</tbody>
</table>
### Answer List

1. 25 degrees
2. $630^\circ$
3. 9,000
4. 162

### Catalog List

1. SAT BF 102
2. SAT CE 8
3. SAT EB 12
4. SAT ED 12
SUMMARY DIRECTIONS FOR COMPARISON QUESTIONS

Answer: A if the quantity in the column A is greater;
B if the quantity in the column B is greater;
C if the quantities are equal;
D if it is not possible to determine which is greater.

AN E RESPONSE WILL NOT BE SCORED.

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 silver pieces and 1 gold piece have</td>
<td>Value of 1 gold piece</td>
</tr>
<tr>
<td>the same value as 3 gold pieces.</td>
<td>Value of 5 silver pieces</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>$10 \star (2 \star 3)$</td>
<td>$(1 \star 2) \star 3$</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>$a \star b = \frac{2a - b}{2b - a}$</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>$j, k, \ell, m,$ and $n$ are consecutive, odd</td>
<td></td>
</tr>
<tr>
<td>integers.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>The percent increase resulting from changing</td>
<td>The percent increase resulting from changing</td>
</tr>
<tr>
<td>a $10$ item to an $11$ item</td>
<td>a $20$ item to an $22$ item</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>$\ell_1 \parallel \ell_2$</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>$0 \leq A &lt; B \leq 100$</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>$A%$ of $B$</td>
<td>$B%$ of $A$</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>$2y - x$</td>
<td>$0$</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>$\ell$</td>
<td>average value of $j, k, \ell, m,$ and $n$.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>$\frac{1}{3}$ of a liter</td>
<td>$333$ milliliters</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>AUTOMOBILES SOLD</td>
<td></td>
</tr>
<tr>
<td>1993</td>
<td></td>
</tr>
<tr>
<td>1994</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>In 1994 the dealer sold 300 cars.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>The number of cars each represents</td>
<td>$60$</td>
</tr>
</tbody>
</table>
10. The ratio of rainy days to sunny days during one month was 3 : 4
   Column A: The total number of sunny days
   Column B: 20

11. The area of parallelogram \(ABCD\)
   Column A: 20

12. Andrea has \(p\) pencils and Terry has 2 less than twice as many pencils as Andrea.
   Column A: The number of pencils that Terry has
   Column B: \(2p - 4\)

13. \(0 < a < b < c < d < e < f\)
   Column A: \(a + d\)
   Column B: \(b + c\)

14. the degree measure of \(\angle QTS\)
    the degree measure of \(QS\)

15. \(x^2 = 16, y^2 = 25\)
   Column A: \((x + y)(x - y)\)
   Column B: 9

16. \(0.025\)
   Column A: \(\frac{1}{4}\%\)

17. Surface area of the cube shown
   Column A: 3
   Surface area of the rectangular solid shown

18. In a bag containing exactly 20 marbles, 3 are black, 9 are blue, and the remainder are white.
   Column A: The percent of white marbles in the bag
   Column B: 32\%

19. \(RS > PQ\)
   Column A: \(PR\)
   Column B: \(QS\)

20. \(4 \times (3 + 3) \div 2\)
   Column A: \((4 \times 3) + (3 \div 2)\)
Answer List

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

Catalog List

1. SAT GF 31
2. SAT IC 11
3. SAT GF 26
4. SAT HA 6
5. SAT GG 4
6. SAT GF 54
7. SAT IE 5
8. SAT ID 5
9. SAT IF 10
10. SAT IE 25
11. SAT HC 12
12. SAT GF 16
13. SAT GE 92
14. SAT HE 13
15. SAT GB 87
16. SAT FA 17
17. SAT HF 14
18. SAT IE 17
19. SAT HG 12
20. SAT FD 15