SAT Prep

1. If one “pentaminute” is the same as five minutes of time, how many pentaminutes are equivalent to four hours of time?
   a. 1200  b. 240  c. 60  d. 48  e. 20

2. If \(a = 12\) and \(b = -4\), what is the value of \(4a - 3b\)?
   a. 60  b. 36  c. 16  d. 9  e. -52

3. The average (arithmetic mean) of 4 and \(s\) is equal to the average of 3, 8 and \(s\). What does \(s\) equal?
   a. 3  b. 5.5  c. 9  d. 10  e. No such \(s\) exists.

4. In the figure at right, \(AB = CD\). What does \(k\) equal?
   a. -6  b. -5  c. -4  d. -3  e. -2

5. The initial term of a sequence is 36. Each term after that is half of the term before it if that term is even. If the preceding term is odd, the next term is one half that term, plus one half. What is the sixth term of this sequence?
   a. 1  b. 2.25  c. 2  d. 3.5  e. 4

6. At a spa, the customer is offered a choice of five different massages and eight different pedicures. How many different combinations are there of one massage and one pedicure?
   a. 3  b. 13  c. 16  d. 28  e. 40

7. A rectangular box is 12 cm long, 20 cm wide, and 15 cm high. If exactly 60 smaller identical rectangular boxes can be stored perfectly in this larger box, which of the following could be the dimensions, in cm, of these smaller boxes?
   a. 5 by 6 by 12  b. 4 by 5 by 6  c. 3 by 5 by 6  d. 3 by 4 by 6  e. 2 by 5 by 6
8. When Harry returned his book to the library, Madame Pince told him he owed a fine of $6.45. This included $3.00 for three weeks, plus a fine of $0.15 per day for every day he was late in returning the book. How many overdue days did Harry have the book?

9. What is the slope of the line that passes through the points (0, 2) and (–10, –2)?

10. At right is the complete graph of the function $f(x)$. For how many positive values of $x$ does $f(x) = 3$?

![Graph of function f(x)](attachment:graph.png)

**Answers**

1. D
2. A
3. D
4. C
5. C
6. E
7. E
8. 23 days
9. $\frac{2}{3}$
10. 2