

Tutorial Set 3

Sample SAT problems (for high school students): Subtraction Set 1 for lower grade students: Solutions to Exercise 2

I. Sample SAT Problems

1)

What is the average (arithmetic mean) of $4x + 5$, $7x - 6$, and $-8x + 2$?

- a. $x + 1$
- b. $x + 1/3$
- c. $3x + 1$
- d. $3x + 1/3$
- e. $3x + 3 \frac{1}{3}$

2)

In a classroom of 35 students, 14 are male. What percent of the classroom is male?

- a. 14%
- b. 20%
- c. 30%
- d. 40%
- e. 50%

3)

If the area of a triangle is 24 and its base is 6, what is the length of the altitude to that base?

- a. 3
- b. 6
- c. 8
- d. 10
- e. unknown

4)

Lenny's average score after 3 tests is 88. What score on the 4th test would bring Lenny's average up to exactly 90?

- a. 92
- b. 93
- c. 94
- d. 95
- e. 96

5)

If an integer is divisible by 6 and by 9, then the integer must be divisible by which of the following?

- a. 12
- b. 18
- c. 24
- d. 36
- e. 54

6)

The equation $x^2 = 5x - 4$ has how many distinct real solutions?

- a. 0
- b. 1
- c. 2
- d. 3
- e. Unknown

7)

A certain machine can make 3 widgets every 2 seconds. At this rate, how many widgets will be made in 1 minute?

- a. 90
- b. 110
- c. 150
- d. 180
- e. 220

8)

If $x + y < 10$, and $x - y > 12$, which of the following pairs could be the values of x and y ?

- a. (2, 6)
- b. (6, -4)
- c. (8, -4)
- d. (8, -6)
- e. (10, -2)

II. Subtract Set 1

Subtraction Set 1

- | | | | | |
|----------------|----------------|----------------|----------------|----------------|
| 1. $11 - 3 =$ | 2. $13 - 9 =$ | 3. $18 - 7 =$ | 4. $16 - 7 =$ | 5. $14 - 6 =$ |
| 6. $10 - 5 =$ | 7. $18 - 9 =$ | 8. $15 - 6 =$ | 9. $13 - 8 =$ | 10. $12 - 9 =$ |
| 11. $9 - 4 =$ | 12. $17 - 7 =$ | 13. $10 - 6 =$ | 14. $15 - 8 =$ | 15. $19 - 7 =$ |
| 16. $17 - 8 =$ | 17. $16 - 6 =$ | 18. $18 - 6 =$ | 19. $17 - 5 =$ | 20. $14 - 7 =$ |
| 21. $14 - 3 =$ | 22. $19 - 4 =$ | 23. $12 - 5 =$ | 24. $16 - 9 =$ | 25. $11 - 7 =$ |

III. Solution to Tutorial Set 2

Answers: Addition Practice Set 1

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|-------------|------------------|----------------|----------------|-----------------|
| 1. $3+8 =$ | 2. $9 + 4 = 13$ | 3. $7+5 = 12$ | 4. $7+9 = 16$ | 5. $6+ 5 = 11$ |
| 6. $5+8 =$ | 7. $6 + 7 = 13$ | 8. $6+9 = 15$ | 9. $9+4 = 13$ | 10. $5+ 7 = 12$ |
| 11. $4+9 =$ | 12. $7+9 = 16$ | 13. $6+4 = 10$ | 14. $8+7 = 15$ | 15. $7+ 3 = 10$ |
| 16. $8+8 =$ | 17. $6 + 6 = 12$ | 18. $9+9 = 18$ | 19. $5+5 = 10$ | 20. $7+ 7 = 14$ |
| 21. $8+3 =$ | 22. $4 + 9 = 13$ | 23. $5+7 = 12$ | 24. $9+7 = 16$ | 25. $5+ 6 = 11$ |

Answers: Multiplication Practice Set 1

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|--------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 1. $3 \times 8 =$ | 2. $9 \times 4 = 36$ | 3. $7 \times 5 = 35$ | 4. $7 \times 9 = 63$ | 5. $6 \times 5 = 30$ |
| 6. $5 \times 8 =$ | 7. $6 \times 7 = 42$ | 8. $6 \times 9 = 54$ | 9. $9 \times 4 = 36$ | 10. $5 \times 7 = 35$ |
| 11. $4 \times 9 =$ | 12. $7 \times 9 = 63$ | 13. $6 \times 4 = 24$ | 14. $8 \times 7 = 56$ | 15. $7 \times 3 = 21$ |
| 16. $8 \times 8 =$ | 17. $6 \times 6 = 36$ | 18. $9 \times 9 = 81$ | 19. $5 \times 5 = 25$ | 20. $7 \times 7 = 49$ |
| 21. $8 \times 3 =$ | 22. $4 \times 9 = 36$ | 23. $5 \times 7 = 35$ | 24. $9 \times 7 = 63$ | 25. $5 \times 6 = 30$ |