

Perform the indicated operations. Do the work on your own paper.

1. $-15 + (-6)$
2. $-18 + 6 + (-9)$
3. $-5 + 7$
4. $15 - 23$
5. $4 - (-3)$
6. $-11 - (-7) - 15$
7. $-5 \cdot (-7)$
8. $42 \div (-6)$
9. Simplify:
 - a. $|-7|$
 - b. $-|-7|$
 - c. $-(-5)$
 - d. $-(-3)$
10. Evaluate $-4(a - 2b) - bc$ when $a = 3$, $b = -2$, $c = 4$
11. Simplify: $-3^2 + 10[20 \div (2 - 7)]$
12. Simplify: $3x + 2y - 7 + x - 5y + 3$
13. Simplify: $5x^2 + 2x - 3x^2 + 1$
14. Simplify: $-4(3x)$
15. Simplify: $4(6d - 2) + 10d$
16. Simplify: $8 - 2(x + 3) + 5(x - 4)$
17. Solve: $x + 6 = -5$
18. Solve: $-7x = 21$
19. Solve: $-8x - 5 = -29$
20. Solve: $-7x + 4 = -5x + 14$
21. Solve: $8x - 6x = 12 - 22$
22. Solve: $5 - x = 10$
23. Solve: $3x - 4 = 3(2x + 1) + 5$
24. Solve: $7n + 5 = 12n - 10$
25. Solve: $-2y - 10 = 5y + 18$
26. Solve: $-8n + 6 = -6n$
27. Translate: Three times the difference of a number and seven.
28. Translate: Twice the sum of a number and five.
(Pg 191 know all terms for translations)
29. Easy Formula Problems
 - a. $d = r \cdot t$ solve for r
 - b. $A - B = C$ solve for "A"
30. Word problem similar to 27, 30, 42, 43, 44 from section 3.4

MAT 0018**Answer Sheet for Practice Test 2**

1. -21
2. -21
3. 2
4. -8
5. 7
6. -19
7. 35
8. -7
9. a. 7 b. -7 c. -5 d. 3
10. -20
11. -49
12. $4x - 3y - 4$
13. $2x^2 + 2x + 1$
14. $-12x$
15. $34d - 8$
16. $3x - 18$
17. $x = -11$
18. $x = -3$
19. $x = 3$
20. $x = -5$
21. $x = -5$
22. $x = -5$
23. $x = -4$
24. $3 = n$
25. $y = -4$
26. $n = 3$
27. $3(x - 7)$
28. $2(x + 5)$
29. a. $\frac{d}{t} = r$ b. $A = C + B$
30. Answers to even problems from 3.4: 40. chimp 53 yr, elephant 77yr
42. truck 35 mph, car 70 mph
44. plow \$150, tractor: \$1050

Part 2 of Review for Test 2 MAT 0018

1. Evaluate: $\left(\frac{2}{3}\right)^3$
2. Write in lowest terms: $\frac{-3}{-3}, \frac{-7}{1}, \frac{24x}{30x}, \frac{45x}{80x^2}$
3. Write the prime factorization of 90.
4. $\frac{-3}{8} \cdot \left(\frac{-5}{12}\right)$
5. $\frac{2x}{7} \cdot \left(\frac{-14}{4x}\right)$
6. $\frac{-5}{6} \div 10$
7. $\frac{11y}{20} \div \frac{2}{11}$
8. Reduce if possible:
 - a) $\frac{5x}{10}$
 - b) $\frac{5x+1}{10}$
9. Simplify: $\frac{\frac{1}{2}}{\frac{\frac{2}{3}}{\frac{3}{4}}}$
10. Write in lowest terms: $\frac{60x^4yz}{36x^3y^3z^2}$
11. Simplify: $\frac{17y^2}{24x} \div \frac{13y}{18x}$
12. Simplify: $\frac{ac}{c} \cdot \frac{b^3}{a^2c}$
13. Convert to an improper fraction: $2\frac{3}{5}$
14. Convert to a mixed number: $\frac{5}{3}$
15. Graph $\frac{1}{4}$ on a number line.

Solutions

1. $\frac{8}{27}$

2. $1, -7, \frac{4}{5}, \frac{9}{16x}$

3. $2 \cdot 3 \cdot 3 \cdot 5$

4. $\frac{5}{32}$

5. -1

6. $-\frac{1}{12}$ or $\frac{-1}{12}$ (with only one negative in a fraction, it doesn't matter where it goes)

7. $\frac{121y}{40}$

8a. $\frac{x}{2}$ b. cannot be reduced. It is not in factored form (numerator is not a product)

9. $\frac{2}{3}$

10. $\frac{5x}{3y^2z}$

11. $\frac{51y}{52}$

12. $\frac{b^3}{ac}$

13. $2\frac{3}{5} = \frac{13}{5}$

14. $\frac{5}{3} = 1\frac{2}{3}$