Name: _____

Compass Practice Form E

1. $(-2) - (-5) - (7) + (-1) =$

    A. -1
    B. -3
    C. -5
    D. -9
    E. -13

2. $(2x + 3)^2 =$

    A. $4x^2 + 12x + 9$
    B. $4x^2 - 6x + 9$
    C. $4x^2 + 9$
    D. $4x^2 - 9$
    E. $4x^2 + 6x + 9$

3. $(10x^2 - 7x + 9) - (3x^2 - 12x - 1) =$

    A. $7x^2 + 5x + 10$
    B. $7x^2 + 19x + 8$
    C. $7x^2 - 19x + 8$
    D. $-7x^2 - 12x + 10$
    E. $13x^2 + 5x + 10$

4. When factored completely, $2x^2 - 18 =$

    A. $2(x - 3)(x - 3)$
    B. $2(x - 3)(x + 3)$
    C. $2(x + 1)(x - 9)$
    D. $(2x - 6)(x + 3)$
    E. $(2x - 6)(x - 3)$

5. $(-8)^{\frac{2}{3}} =$

    A. $\dfrac{16}{3}$
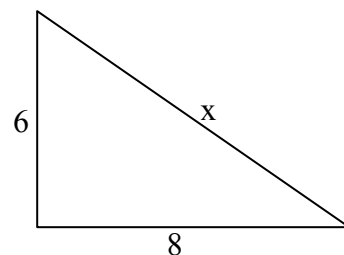   B. $-\dfrac{16}{3}$
    C. -2
    D. 4
    E. -4

6. The least common multiple of 6, 8, and 12 is

    A. 3
    B. 24
    C. 2
    D. 48
    E. 576

7. Solve: $9 - 4x < 37$

    A. $x < -7$
    B. $x > -7$
    C. $x < 7$
    D. $x > 7$
    E. $x > -11\dfrac{1}{2}$

8. Find the value of x:

    A. 14
    B. 100
    C. $\sqrt{14}$
    D. 10
    E. 12

9. $.0000532 =$

    A. 5.32×10^{-4}
    B. 5.32×10^{-5}
    C. 5.32×10^{-6}
    D. 5.32×10^{4}
    E. 5.32×10^{5}

10. If $x^2 = 7x$, then x

A. 0
B. 0, 7
C. -7
D. 0, -7
E. 7
F.

11. 80% of what number is 60?

A. 48
B. 58
C. 80
D. 88
E. No of these

12. $3[8 + (2 \times 5)] - 6$

A. 28
B. 48
C. 54
D. 60
E. None of these
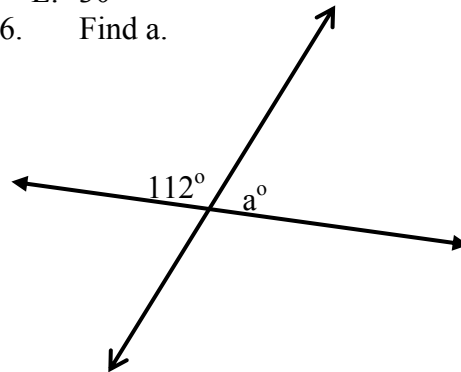
13. $841 - 7.35 =$
A. 106
B. 114
C. 833.65
D. 834.35
E. 844.75
F.

14. If $\sqrt{4 - x} = 5$, then x =

A. 1
B. 25
C. -21
D. -1
E. 9

15. Sue's car gets 25 miles to a gallon of gasoline. If she is planning a trip of 625 miles, how many gallons of gasoline will she need for her trip?
A. 10
B. 15
C. 20
D. 25
E. 30

16. Find a.

A. $38°$
B. $68°$
C. $78°$
D. $90°$
E. $112°$

17. How much does the 4% sales tax add to the cost of a TV that was $497.00?

A. $4.97
B. $16.98
C. $19.88
D. $477.17
E. $516.88

18. The slop of the line $x - 3y = 6$ is

A. $-\dfrac{1}{3}$

B. $\dfrac{1}{3}$

C. 6
D. 1
E. -3

19. $|-5|+|6|+(-5)+6$

    A. -22
    B. -1
    C. 2
    D. 10
    E. 12

20. $36-x^2$

    A. $(x+6)(x-6)$
    B. $(6-x)^2$
    C. $(6+x)^2$
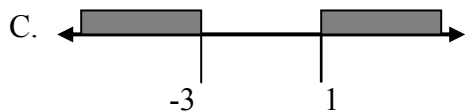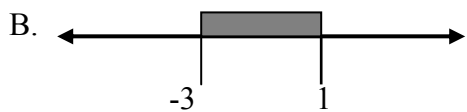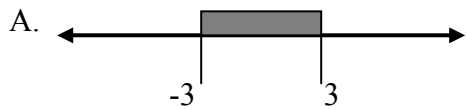   D. $6(6-x)$
    E. $(6+x)(6-x)$

21. If $f(x) = -x^2 + 4$, then $f(-3) =$

    A. 13
    B. -2
    C. -5
    D. -1
    E. 1

22. For all x, one factor of $12x^2 - x - 6 =$
    A. $4x - 3$
    B. $4x + 3$
    C. $12(x - 3)$
    D. $6x + 3$
    E. $6x - 3$

23. The graph of the solution of $-1 \le x - 2 \le 3$

    A.

-3   3

    B.

-3   1

    C.

-3   1

    D.

1   5

    E.

1   5

24. The solution of $x^2 - 25 = 0$
    A. 25
    B. 5
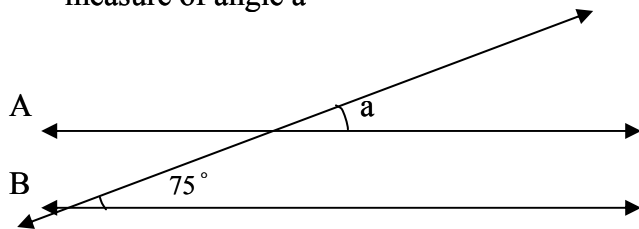   C. -5, 5
    D. -25, 25
    E. -5

25. Solve: $x + 2y = 8$
             $2x - 3y = 2$

    A. $x = 36, y = -14$
    B. $x = 20, y = -10$
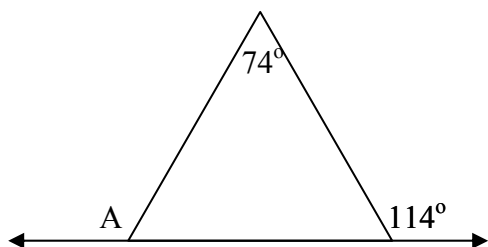   C. $x = 1, y = 0$
    D. $x = 4, y = 2$
    E. $x = 2, y = 3$

26. $(3x^3)^2 =$

    A. $6x^6$

    B. $9x^9$

    C. $3x^6$

    D. $6x^9$

    E. $9x^6$

27. If line A is parallel to line B, find the measure of angle a

A. 40
B. 66
C. 74
D. 114
E. 140

A. 25°
B. 75°
C. 105°
D. 80°
E. 70°

28. The y- intercept of the graph $y = 4x + 3$

A. 3
B. -3
C. 4
D. -4
E. $\dfrac{3}{4}$

29. The solution of $x^2 + 3x - 18 = 0$ are

A. 18, 1
B. 18, -1
C. 9, -1
D. -1, 2
E. 3, -6

30. Find the measure of angle A.

31. $(2x^5 y^2)(3x^2 y) =$

A. $6x^{10} y^2$
B. $6x^7 y^3$
C. $5x^7 y^3$
D. $5x^{10} y^2$
E. $6x^7 y^2$

32. The solution of $4x - 5 = 2(x + 1)$ is between

A. 0 and 1
B. 1 and 2
C. 3 and 4
D. 5 and 6
E. 7 and 8

33. $a + b - (2a - 3b) + (a - 2b) =$

A. -4b
B. 4a-4b
C. 6b
D. 8
E. 2b

34. If $w = -1$, $x = 3$, $y = 2$, then wx^y

A. 8
B. -8
C. 9
D. -9
E. -6

35. The solution of $5 - 3x = 17$ is x

A. $-\dfrac{22}{3}$

B. -4

C. 4

D. $\dfrac{22}{3}$

E. 15

36. $7\dfrac{4}{5} \div 3\dfrac{1}{4} =$

A. $\dfrac{5}{12}$

B. $1\dfrac{13}{16}$

C. $2\dfrac{2}{5}$

D. $25\dfrac{7}{20}$

E. None of these

37. $7\dfrac{3}{4} - 2\dfrac{5}{6} =$

A. $4\dfrac{9}{12}$

B. $4\dfrac{11}{12}$

C. $5\dfrac{1}{12}$

D. $10\dfrac{7}{12}$

E. None of these

38. What value of x satisfies the equation?

$$\frac{1}{x} - \frac{3}{x+2} = 0$$

A. $\dfrac{1}{3}$

B. -5

C. 5

D. -1

E. 1

39. $2x - (x - 8) = 11x - 7(2x + 8)$

A. 0

B. 4

C. 24

D. -16

E. None of these

40. The solution of the inequality $2 - x \leq 3x - 7$ is

A. $x \geq 9$

B. $x \leq 9$

C. $x \geq \dfrac{9}{4}$

D. $x \leq \dfrac{9}{4}$

E. $x \geq 5$

Answers to Form E

1. C	9. B	17. C	25. D	33. E
2. A	10. B	18. B	26. E	34. D
3. A	11. E	19. E	27. B	35. B
4. B	12. B	20. E	28. A	36. C
5. D	13. C	21. C	29. E	37. B
6. B	14. C	22. A	30. E	38. E
7. B	15. D	23. D	31. B	39. D
8. D	16. B	24. C	32. C	40. C

Selected Problems were taken from Passing the CPE 2nd Ed.
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