## Chapter 2, Test Form A  Name:

*In #1 through #3, solve the equation. Check your solution.*

1. $-2=-8+2x$ 1. _____

2. $5-2x=x+4$ 2. _____

3. $3+4(x-2)=x+1$ 3. _____

4. Determine the number of solutions to the equation $3(2x-1)=6x-3$. 4. _____

5. Complete the table. Use the table to solve $5+3x=5$. 5.

| $x$ | $-2$ | $-1$ | 0 | 1 | 2 |
|---|---|---|---|---|---|
| $5+3x$ | | 2 | | | |

_____

*In #6 and #7, translate the sentence into an equation, using the variable x. Then solve the resulting equation.*

6. The sum of 4 times a number and 9 is 7. 6. _____

7. Three times a number plus 2 equals the number minus 4. 7. _____

8. The sum of three consecutive natural numbers is 75. Find the three numbers. 8. _____

9. Convert 4.4% to fraction and decimal notation. 9. _____

10. Convert 0.217 to a percentage. 10. _____

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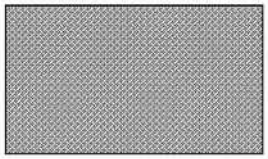
11. Find 7% of \$320. 11. _____

12. Use the formula $d = rt$ to find the value of the missing variable. $d = 175$ mi; $t = 2.5$ hours 12. _____

13. Find the area of the rectangle shown. 13. _____




14. Find the area of a triangle with a 9-inch base and a 6-inch height. 14. _____

15. Find the circumference and area of a circle with a 12-cm diameter. 15. _____

_____

16. The measures of the angles in a triangle are $x$, $3x$, and $5x$. Find the value of $x$. 16. _____

17. Solve the formula $y = 2xz + z$ for $x$. 17. _____

18. Solve the formula $C = \frac{5}{9}(F - 32)$ for $F$. 18. _____

*In #19 and #20, solve the inequality.*

19. $-2 - x \geq 8 + 3x$ 19. _____

20. $3 + 4(x - 2) < x + 1$ 20. _____

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## Chapter 2, Test Form B  Name:

*In #1 through #3, solve the equation. Check your solution.*

1. $-2x+5=-7$ 1. _____

2. $3x+2=-2x+2$ 2. _____

3. $2(4x-3)+1=x$ 3. _____

4. Determine the number of solutions to the equation $3(4x+2)=-6(1-2x)$. 4. _____

5. Complete the table. Use the table to solve $3x-4=5$. 5.

| $x$ | 0 | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| $3x-4$ | | | 2 | | |

_____

*In #6 and #7, translate the sentence into an equation, using the variable x. Then solve the resulting equation.*

6. The difference between 2 times a number and 3 is 2. 6. _____

7. Twice a number minus 4 equals the number plus 1. 7. _____

8. The sum of three consecutive integers is $-54$. Find the three integers. 8. _____

9. Convert 31.5% to fraction and decimal notation. 9. _____

10. Convert 0.028 to a percentage. 10. _____

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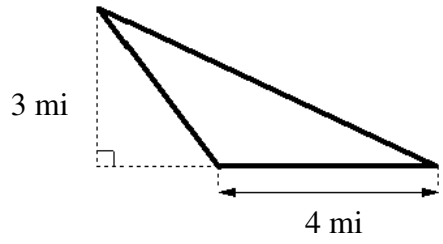
11. Find 2.5% of \$850. 11. _____

12. Use the formula $d = rt$ to find the value of the missing variable. $d = 1250$ mi; $r = 250$ mi/day 12. _____

13. Find the area of the triangle shown. 13. _____




14. Find the area of a rectangle with a 4-foot width and a 7-foot length. 14. _____

15. Find the circumference and area of a circle with an 8-inch diameter. 15. _____

_____

16. The measures of the angles in a triangle are $x$, $3x$, and $6x$. Find the value of $x$. 16. _____

17. Solve the formula $c = ab - 3b$ for $a$. 17. _____

18. Solve the formula $A = 2\pi rh$ for $r$. 18. _____

*In #19 and #20, solve the inequality.*

19. $4 - \frac{1}{2}x > x + 1$ 19. _____

20. $2 - 3(x + 4) \geq 2x - 1$ 20. _____

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## Chapter 2, Test Form A

1. 3
2. $\frac{1}{3}$
3. 2
4. infinitely many
5. 

| $x$ | $-2$ | $-1$ | 0 | 1 | 2 |
|---|---|---|---|---|---|
| $5+3x$ | $-1$ | 2 | 5 | 8 | 11 |

; 0
6. $4x+9=7;\ -\frac{1}{2}$
7. $3x+2=x-4;\ -3$
8. 24, 25, 26
9. $\frac{11}{250}$; 0.044
10. 21.7%
11. 22.4
12. $r=70$ mph
13. 7 $\text{ft}^2$
14. 27 $\text{in}^2$
15. $C=12\pi \text{ cm}\approx 37.7 \text{ cm}$
    $A=36\pi \text{ cm}^2\approx 113.1 \text{ cm}^2$
16. $20^\circ$
17. $x=\frac{y-z}{2z}$
18. $F=\frac{9}{5}C+32$
19. $x\le -\frac{5}{2}$
20. $x<2$

## Chapter 2, Test Form B

1. 6
2. 0
3. $\frac{5}{7}$
4. none
5. 

| $x$ | 0 | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| $3x-4$ | $-4$ | $-1$ | 2 | 5 | 8 |

; 3
6. $2x-3=2;\ \frac{5}{2}$
7. $2x-4=x+1;\ 5$
8. $-19,-18,-17$
9. $\frac{63}{200}$; 0.315
10. 2.8%
11. \$21.25
12. $t=5$ days
13. 6 $\text{mi}^2$
14. 28 $\text{ft}^2$
15. $C=8\pi \text{ in}\approx 25.1 \text{ in}$
    $A=16\pi \text{ in}^2\approx 50.3 \text{ in}^2$
16. $18^\circ$
17. $a=\frac{c+3b}{b}$
18. $r=\frac{A}{2\pi h}$
19. $x<2$
20. $x\le -\frac{9}{5}$

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