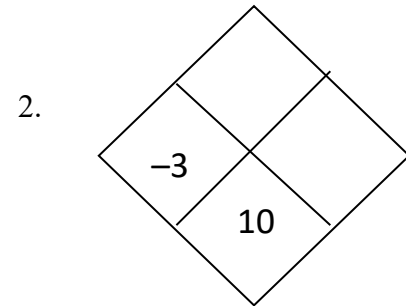
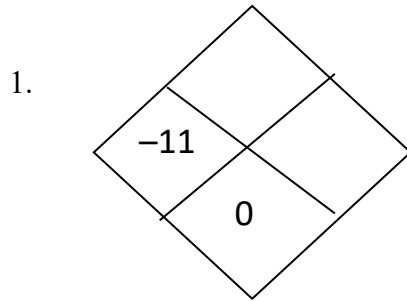


**SHOW ALL WORK to receive full credit.**

Complete the diamond problems. (1 point each)



Simplify the following expressions using positive and negative integers. (1 point each)

3.  $-7x + 3x - 5$

4.  $9 - 10x + 3$

5.  $20x - 13 + 8x - 5$

6. 
$$\frac{-13x + 4x}{\quad}$$

7. 
$$\frac{24x - 22x}{\quad}$$

8. 
$$\frac{-6x - 11x}{\quad}$$

9.  $8x - 4 - 3x + 11$

10.  $-4x - 9 + 6x - 13$

11.  $-5x - 12x - 9x + 6$

12.  $-5(6x - 4) + 10$

13.  $-(2x - 3) + 23x$

14.  $-(2x + 9) - 4(1 - 2x)$

Complete the following without the use of a table, but still think of the mental percents to help you. (2 points each)

15. What is 30% of \$2,400.00? \_\_\_\_\_

16. What is 15% of \$32.00? \_\_\_\_\_  
(TIP)

17. What is 8% of \$99.00? \_\_\_\_\_  
(Tax)

18. What is 40% of 56? \_\_\_\_\_

Answer each of the following applications to Mental Percents questions. Answers must be rounded to the nearest cent (hundredths). (2 points each)

19. Mr. Loken bought a season pass for skiing this winter at Sierra at Tahoe. He received a teacher discount of 20% off the usual price of \$250.00. What will he pay for the season pass?

Discount for pass: \_\_\_\_\_

Amount pass will cost: \_\_\_\_\_

20. The Smith family went out to dinner at Applebee's. The total bill was \$90.00. They wanted to leave a 15% tip. How much was the tip and the total they paid (including the tip)

Tip amount: \_\_\_\_\_

Total bill including tip: \_\_\_\_\_

**Solve the following equations. (2 points each)**

21.  $2x - 3 = 3x + 8$

22.  $-4x + 16 = 2x - 19 + x$

23.  $8x - (5x + 5) - 4 = 21$

24.  $\frac{3}{2} = \frac{2x-6}{8}$

**(4 points each)**

25.  $7(2x + 2) - (-9 - 6x) = 5(x + 12) + 8$

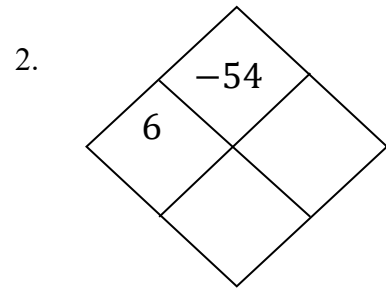
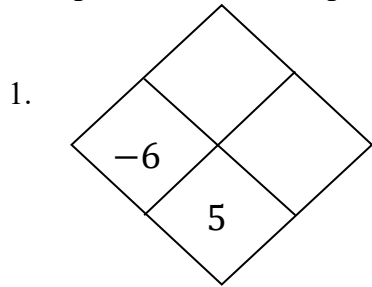
26.  $\frac{x+4}{-3} = \frac{x-20}{-5}$

27.  $\frac{-28}{x+3} = \frac{7}{-2}$

28.  $4(5x - 3) - 4x = -7(1 - 2x) - 3$

**SHOW ALL WORK to receive full credit.**

Complete the diamond problems. (2 points each)



Combine the following. (2 points each)

3. 
$$\begin{array}{r} -16x \\ + 3x \\ \hline \end{array}$$

4. 
$$\begin{array}{r} -16 \\ + 24 \\ \hline \end{array}$$

5.  $-3x + 7 - 5x - 11$

6.  $7x + 15 - 3x - 18$

7.  $2(6 - 5x) + 2$

8.  $-3(4x - 7) - (5 - 6x)$

Complete the following without the use of a table, but still think of the mental percents to help you. (2 points each)

9. What is 6% of \$2,450.00? \_\_\_\_\_

10. What is 15% of \$65.00? \_\_\_\_\_  
(TIP)

Answer each of the following applications to Mental Percents questions. Answers must be rounded to the nearest cent (hundredths). (3 points each)

11. Mr. Woodruff went to Safeway to buy groceries. His subtotal on his receipt was \$120.00. If tax is 8% of the subtotal, how much tax did he have to pay? What was the total cost for his groceries?

Tax: \_\_\_\_\_

Total Cost: \_\_\_\_\_

12. A family of three is planning to go to Six Flags Discovery Kingdom where ticket prices are usually \$60.00 per ticket. They notice a special that will save them 20% per ticket if they buy 3 or more tickets. What would the tickets cost the family of three?

Total Original Price for 3 tickets: \_\_\_\_\_

Discount for 3 tickets: \_\_\_\_\_

Total Price for the 3 tickets: \_\_\_\_\_

Solve the following equations. (3 points each)

13.  $10x + 6 = 12x + 22$

14.  $-6x + 14 + x = 6 + 3x - 16$

15.  $4 - (3x - 7) + 2 = 4$

16.  $\frac{5}{3} = \frac{-10}{x-9}$

17.  $-14 = 6x - 4(2x + 3)$

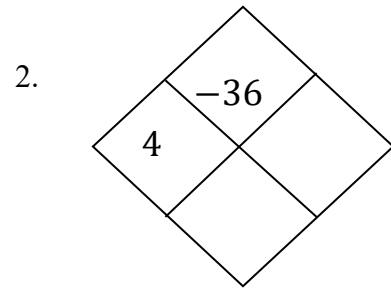
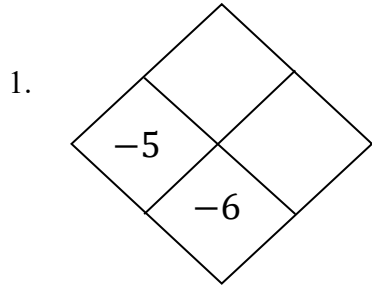
18.  $\frac{4}{x+3} = \frac{-16}{x-22}$

19.  $2(2x - 5) - 4(3x - 1) = -2(2x - 7) - 2x - 8$

20.  $\frac{-28}{x+3} = \frac{7}{-2}$

**SHOW ALL WORK to receive full credit.**

Complete the diamond problems. (2 points each)



Simplify the following expressions using positive and negative integers. (2 points each)

3. 
$$\frac{13x}{-14x}$$

4. 
$$\frac{-12}{+19}$$

5.  $6x - 9 - 7x + 15$

6.  $-2x + 6 - 12x - 14$

7.  $-3(7 + 3x) + 5$

8.  $4(-2x + 6) - (-8 + 7x)$

Use the percent Formula  $\frac{\text{is}}{\text{of}} = \frac{\%}{100}$  to solve the following. Round money answers to the nearest cent (hundredth), all others to the nearest tenth. (2 points each)

9. 13 is \_\_\_\_\_% of 52

10. 144 out of 480 is \_\_\_\_\_%

11. 25% of 52 is \_\_\_\_\_

12. 36% of \_\_\_\_\_ is 180

Complete the following without the use of a table, but still think of the mental percents to help you. (3 points each)

13. What is 51% of \$1,100.00? \_\_\_\_\_

14. What is 15% of \$90.00? \_\_\_\_\_  
(TIP)

**Answer each of the following applications to Mental Percents questions. Answers must be rounded to the nearest cent (hundredths). (4 points each)**

15. Mr. Burghardt went to Kmart to buy golf balls and a ball retriever. His subtotal on his receipt was \$47.00. If tax is 8% of the subtotal, how much tax did he have to pay? What was the total cost of his purchase?

Tax: \_\_\_\_\_

Total Cost: \_\_\_\_\_

16. The Sacramento Kings had a special for their home opener. The nose-bleed seats are usually \$45.00. If you buy a 4-ticket package you get a 10% discount. What would the tickets cost for one 4-ticket package?

Total Original Price for 4 Tickets: \_\_\_\_\_

Discount for the 4 tickets: \_\_\_\_\_

Total Price for the 4 tickets after discount: \_\_\_\_\_

**Solve the following equations. (3 points each)**

17.  $9x - 11 - 2x = -12 - 5x - 11$

18.  $5 - (2x + 8) - 8 = 19$

19.  $9(x - 2) - 3(5x - 3) = -(5x - 3) - 3x$

20.  $\frac{18}{2x-6} = \frac{3}{4}$