

ATTENTION BUCKLEY'S MATH STUDENTS:

Below is work for the 9th grade Algebra 1 class. This work should hold you over for the next week (March 30-April 3). I have included links to some videos that might help refresh your memory. Stay safe, and I can't wait until we can get back to class.

Day 1 - Video 1 : <https://youtu.be/CIYdw4d4OmA> - order of operations video

Day 2 - Video 2 : <https://youtu.be/CLWpkv6ccpA> - combining like terms video

Day 3 - Videos 3-6 : <https://youtu.be/jWpiMu5LNdg> - solving for x videos
<https://youtu.be/DqeMQHomwAU>
https://youtu.be/p5e5mf_G3FI

Day 4 Video 7 : <https://youtu.be/WkspBxrzuZo> - finding slope of a line video

Day 5 Video 8 : <https://youtu.be/4IFjfafySE> - solving diamond problems

Order of Operations - watch Video 1 for a refresher.

Evaluate each expression.

1) $3 + 2 \times 5$

3) $(6 + 1) \times 4$

5) $6 - (2 + 1)$

7) $1^2 + 1$

9) $6 - 15 \div 5$

11) $(3 \times 2) \div 6$

13) $4^2 - 4$

15) $2^2 \times 5$

17) $1 + 16 \div 4$

19) $4 + 2^2$

21) $2 + 5 \times 3$

23) $6 - (4 - 1)$

25) $(4 + 16) \div 5$

27) $18 \div (5 - 2)$

29) $2 + 6 - 5$

31) $((-5) - 7 - 7) \times 4$

33) $(-27) \div (3 - 4 - 8)$

35) $((-5) + 9)(8 - 9)$

37) $4^3 - (6 \times 6 + 4)$

39) $3 - (6 \times 2) \div 4 + 3$

2) $12 \div (4 - 2)$

4) $6^2 - 2$

6) $5 + 3 - 1$

8) $2 + 5 + 1$

10) $6 + 5 - 4$

12) $6 \div (4 - 1)$

14) $3 - (4 - 3)$

16) $(3 + 15) \div 6$

18) $6^2 + 2$

20) $18 \div 3 - 3$

22) $5 + 2 + 6$

24) $(5 - 1) \times 3$

26) $2 \times 4 + 6$

28) $(3 - 2) \times 6$

30) $5 + 3 - 3$

32) $(-3)(5 \times (-5) - 6)$

34) $(-2) - (15 \div (-5) - 4)$

36) $2 \times 5 - ((-6) \div 3)$

38) $(11 - 2 + 3) \div (3 + 1)$

40) $12 \div (4 + 5 - 5) - 2$

Simplify each expression.

1) $5 + 6x - x$

3) $x - 2x$

5) $9k - 7k$

7) $-8n - 3n$

9) $2k - 10k$

11) $-x + 10x$

13) $a + 3 + 1 + 8a$

15) $3 + 9b + 9b$

17) $n - 1 + 9n + 3$

19) $3m - 5m$

21) $7n - 2n$

23) $-2x - 9x$

25) $b + 7 + 1 - 10b$

27) $-5x - 4x$

29) $1 + 2x + 1 - 2x$

31) $7 + 6x + 8x$

33) $7 + 8k + k$

2) $5x - 10 + 7 + 10x$

4) $6n - 6n$

6) $-3n + 8 + 6 + 6n$

8) $-7p + 10p$

10) $5b + 10 - 3b - 1$

12) $7v - 5 - 10$

14) $-3b - 6b$

16) $6v - v$

18) $6p + 4 + 2p$

20) $3 + 2x - 8x$

22) $n - 1 - 3n + 9$

24) $-9r - 3r$

26) $10 - 6m + 7m$

28) $-3m + 4m$

30) $1 + 2x + 4$

32) $-10v + 2 + 9v$

34) $-4n - 8 + n$

Solve for x - watch Videos 3-6 for a refresher.

Solve each equation.

- 1) $10r = -100$
- 2) $a + 9 = 5$
- 3) $-5a = 50$
- 4) $r - 10 = -2$
- 5) $a - 7 = 0$
- 6) $4m = -28$
- 7) $n - 8 = -11$
- 8) $b - 3 = -5$
- 9) $\frac{n}{9} = -8$
- 10) $8 + v = 5$
- 11) $p - 10 = -14$
- 12) $5 + k = 12$
- 13) $n + 10 = 19$
- 14) $7k = 35$
- 15) $\frac{m}{6} = -9$
- 16) $x + 6 = 14$
- 17) $x + 5 = -4$
- 18) $-8x = 48$
- 19) $n - 10 = -7$
- 20) $p + 9 = 10$
- 21) $\frac{x}{3} = -4$
- 22) $x - 4 = -11$
- 23) $2 + b = 2$
- 24) $6x = 24$
- 25) $-2 + 4x = -6$
- 26) $3(k + 4) = 42$
- 27) $4(1 + n) = -36$
- 28) $5(x + 2) = -15$
- 29) $-3x + 3 = -3$
- 30) $-4 + \frac{v}{3} = -1$
- 31) $4 + 5k = 44$
- 32) $3(v - 2) = -33$
- 33) $\frac{b}{2} + 4 = 9$
- 34) $5 + \frac{n}{3} = 2$
- 35) $4 + \frac{r}{8} = 3$
- 36) $5 + \frac{x}{3} = 8$
- 37) $5x + 3 = -22$
- 38) $4 + \frac{x}{2} = 2$
- 39) $1 - 2a = 9$
- 40) $5(5 + a) = -5$
- 41) $-1 + 4n = -21$
- 42) $3 + \frac{x}{3} = 6$
- 43) $5 - 4x = 21$
- 44) $\frac{b}{4} + 3 = 2$
- 45) $\frac{n}{10} + 2 = 3$
- 46) $4(p - 3) = -40$
- 47) $-4n + 5 = 33$
- 48) $-4m + 3 = 7$

Find slope of a line given 2 points - watch Video 7 for a refresher.

Find the slope of the line through each pair of points.

1) $(8, 20), (1, -20)$

2) $(-2, -1), (17, -14)$

3) $(-16, 12), (-13, 15)$

4) $(-1, -17), (-6, -1)$

5) $(15, 15), (12, -7)$

6) $(-1, 7), (-16, -18)$

7) $(-7, -16), (-11, -2)$

8) $(13, -17), (15, -6)$

9) $(-19, -20), (3, -4)$

10) $(19, 0), (13, -2)$

11) $(-3, 16), (-7, -3)$

12) $(10, -13), (2, -13)$

13) $(10, 20), (-7, -11)$

14) $(-15, 20), (-12, 17)$

15) $(-16, -5), (-17, -5)$

16) $(-6, -8), (-10, 1)$

17) $(14, -9), (14, 16)$

18) $(-4, -8), (-3, 0)$

19) $(12, 0), (10, -3)$

20) $(7, 13), (0, 18)$

21) $(-19, -12), (-15, 19)$

22) $(17, -8), (12, 5)$

23) $(8, -4), (5, -17)$

24) $(5, 13), (2, -13)$

25) $(18, 17), (17, 1)$

26) $(9, 4), (6, 17)$

Diamond Problems - watch Video 8 for a refresher.

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|------|--|------|---|------|--|------|--|
| (1) | $\begin{array}{c} \diagup 12 \diagdown \\ \diagdown -8 \diagup \end{array}$ | (2) | $\begin{array}{c} \diagup 20 \diagdown \\ \diagdown -9 \diagup \end{array}$ | (3) | $\begin{array}{c} \diagup 14 \diagdown \\ \diagdown -9 \diagup \end{array}$ | (4) | $\begin{array}{c} \diagup 108 \diagdown \\ \diagdown 21 \diagup \end{array}$ |
| (5) | $\begin{array}{c} \diagup -8 \diagdown \\ \diagdown 7 \diagup \end{array}$ | (6) | $\begin{array}{c} \diagup 20 \diagdown \\ \diagdown 9 \diagup \end{array}$ | (7) | $\begin{array}{c} \diagup 60 \diagdown \\ \diagdown -16 \diagup \end{array}$ | (8) | $\begin{array}{c} \diagup 16 \diagdown \\ \diagdown 10 \diagup \end{array}$ |
| (9) | $\begin{array}{c} \diagup 40 \diagdown \\ \diagdown -13 \diagup \end{array}$ | (10) | $\begin{array}{c} \diagup 77 \diagdown \\ \diagdown -18 \diagup \end{array}$ | (11) | $\begin{array}{c} \diagup 55 \diagdown \\ \diagdown -16 \diagup \end{array}$ | (12) | $\begin{array}{c} \diagup 84 \diagdown \\ \diagdown 19 \diagup \end{array}$ |
| (13) | $\begin{array}{c} \diagup 72 \diagdown \\ \diagdown -17 \diagup \end{array}$ | (14) | $\begin{array}{c} \diagup 40 \diagdown \\ \diagdown 14 \diagup \end{array}$ | (15) | $\begin{array}{c} \diagup 99 \diagdown \\ \diagdown -20 \diagup \end{array}$ | (16) | $\begin{array}{c} \diagup 110 \diagdown \\ \diagdown 21 \diagup \end{array}$ |
| (17) | $\begin{array}{c} \diagup 11 \diagdown \\ \diagdown -12 \diagup \end{array}$ | (18) | $\begin{array}{c} \diagup 72 \diagdown \\ \diagdown -17 \diagup \end{array}$ | (19) | $\begin{array}{c} \diagup 10 \diagdown \\ \diagdown 11 \diagup \end{array}$ | (20) | $\begin{array}{c} \diagup 30 \diagdown \\ \diagdown 11 \diagup \end{array}$ |
| (21) | $\begin{array}{c} \diagup 6 \diagdown \\ \diagdown -7 \diagup \end{array}$ | (22) | $\begin{array}{c} \diagup -40 \diagdown \\ \diagdown 3 \diagup \end{array}$ | (23) | $\begin{array}{c} \diagup 56 \diagdown \\ \diagdown -15 \diagup \end{array}$ | (24) | $\begin{array}{c} \diagup 24 \diagdown \\ \diagdown -11 \diagup \end{array}$ |
| (25) | $\begin{array}{c} \diagup 6 \diagdown \\ \diagdown 7 \diagup \end{array}$ | (26) | $\begin{array}{c} \diagup 108 \diagdown \\ \diagdown -21 \diagup \end{array}$ | (27) | $\begin{array}{c} \diagup 10 \diagdown \\ \diagdown -7 \diagup \end{array}$ | (28) | $\begin{array}{c} \diagup 44 \diagdown \\ \diagdown 15 \diagup \end{array}$ |