

NAME:

Period: Score: / = % =

Int 2

Unit 1 Review Sheet

Unit 1

Equations and Inequalities

Solve. Check your solution(s). Graph your answers on the inequalities.

1) $-3.2 = -2x$

$x = 1.6$

2) $\frac{3}{8}g = \frac{2}{3}$

$g = \frac{16}{9}$ or $1\frac{7}{9}$

3) $2.2v = 58.3$

$v = 26.5$

4) $\frac{5}{6}k = 1\frac{7}{8}$

$k = \frac{9}{4}$ or $2\frac{1}{4}$

5) $\frac{3}{4} = -1\frac{3}{5}x$

$x = -\frac{15}{32}$

6) $9 - 5y = -76$

$y = 17$

7) $-37.14 = 1.8c + 30$

$c = -37.3$

8) $\left| \frac{3}{4}h + 8 \right| = 25$

$h = \frac{68}{3}$ or $22\frac{2}{3}$

$h = -44$

9) $\frac{g}{3} + 10 = 14$

$g = 12$

10) $\frac{m+6}{-3} = -2$

$m = 0$

$m = -12$

11) $\frac{w}{7} - 13 = -61$

$w = -336$

12) $\frac{d-6}{5} = -3$

$d = -9$

Solve the following inequalities. Then, graph your answers on the number lines provided.

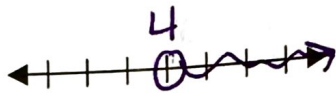
13) $\frac{1}{4}x - 60 \geq 8$

$x \geq 272$



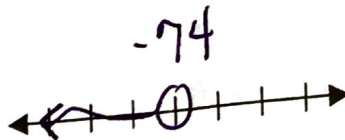
14) $9 < 4x - 7$

$x > 4$



15) $\frac{m+14}{-10} > 6$

$m < -74$



Solve each equation. Check your solution. Graph your answers on the inequalities.

16) $13f = 16f + 45$

$f = -15$

17) $5b - 10 = 7b + 4$

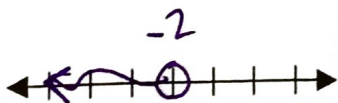
$b = -7$

18) $6n - 8 = 2n$

$n = 2$

19) $4 + 2w > 8w + 16$

$w < -2$



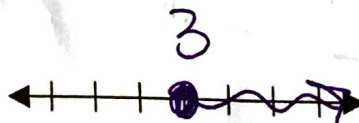
20) $4m + 11 \geq 6 - m$

$m \geq -1$



21) $-3x + 12 \leq 3x - 6$

$x \geq 3$



Solve each equation. Check your solution(s).

22) $4 + 2r + 7 = 2r - 6$

NO

SOLUTION

23) $\frac{2}{3}t - 7 = 5 - \frac{2}{3}t$

$t = 9$

24) $\frac{5}{6}x - 12 = \frac{1}{6}x + 12$

$x = 36$

25) $1.4f + 1.1 = 8.3 - f$

$f = 3$

26) $-5(w - 17) = 42$

$w = 59$

27) $\frac{7n + (-5)}{-3} = 11$

$n = -4$

28) $10z + 42 = 3(3z + 14) + z$

∞
many

29) $35.5 = 5(a - 2.5) + 3a$

$a = 6$

30) $8 + |4d| = 28$

$d = 5$
 $d = -5$

31) $7(8x - 12) = -2(7x + 14)$

$x = \frac{4}{5}$

Determine whether the solution given is correct for the equation. If the given solution is not correct, solve to find the correct solution. Remember to show your work.

32) Solution: $x = 4$
Equation: $-(7 - 4x) = 9$

Correct

33) Solution: $k = -2$
Equation: $-18 - 6k = 6(1 + 3k)$

incorrect

$k = -1$

34) Solution: All Real Numbers
Equation: $w + 7 - 4w = 2w + 7 - 5w$

Correct

35) Solution: $b = 10$
Equation: $8 + \frac{b}{-4} = 5.5$

Correct

36) Solution: $z = 0$
Equation: $z + 5 = -5z + 5$

Correct

37) Solution: $a = 2$
Equation: $24a - 22 = -4(1 - 6a)$

incorrect

NO
SOLUTION