

Name: _____

Date: _____

Learning Goal 9.1

Solving linear inequalities.

Assignment – Answers

1. Solve each inequality. Graph the solution and use a test point to verify your answer.

a. $2m + 3 \leq -7$
 $m \leq -5$

c. $2 + 3g < g - 5$
 $g < -\frac{7}{2}$

e. $\frac{3}{5}f - \frac{1}{2} < 2 + f$
 $f > -\frac{25}{4}$

g. $15t - 17 \geq 21 - 4t$
 $t \geq \frac{38}{11}$

i. $-2(3 - 2n) \leq 2(2 - n)$
 $n \leq 5$

k. $-\frac{5}{8}d + \frac{1}{4} \leq \frac{3}{4} - \frac{1}{2}d$
 $d \geq -4$

b. $-4x - 2 > 10$
 $x < -3$

d. $-2 \leq -6 + \frac{1}{4}c$
 $c \geq 16$

f. $4a - 5 \leq a + 2$
 $a \leq \frac{7}{3}$

h. $24 + 3a \leq -6 + 7a$
 $a \geq \frac{15}{2}$

j. $7 + \frac{1}{3}b \leq 2b + 22$
 $b \geq 9$

l. $\frac{3}{2}a + \frac{1}{2} < \frac{7}{3}a - \frac{3}{4}$
 $a > \frac{3}{2}$

2. The cost of a prom is \$4000 to rent a hall and \$40 per person for the meal. The prom committee has \$10 000. How many students can attend?

Maximum 150 students