**1-5 Practice**

***Solving Inequalities***

**Solve each inequality. Then graph the solution set on a number line.**

**1.** 8*x* – 6 ≥ 10

 

**2.** 23 – 4*u* < 11

 

**3.** –16 – 8*r* ≥ 0

 

**4.** 14*c* < 9*c* + 5

 

**5.** 9*x* – 11 > 6*x* – 9

 

**6.** –3(4*w* – 1) > 18

 

**7.** 1 – 8*u* ≤ 3*u* – 10

 

**8.** 17.5 < 19 – 2.5*x*

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**9.** 9(2*r* – 5) – 3 < 7*r* – 4

 

**10.** 1 + 5(*x* – 8) ≤ 2 – (*x* + 5)

 

**11.** $\frac{4x-3}{2}$ ≥ –3.5

 **12.** *q* – 2(2 – *q*) ≤ 0

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**13.** –36 – 2(*w* + 77) > –4(2*w* + 52)

 

**14.** 4*n* – 5(*n* – 3) > 3(*n* + 1) – 4

 

**Define a variable and write an inequality for each problem. Then solve.**

 **15.** Twenty less than a number is more than twice the same number.

 **16.** Four times the sum of twice a number and –3 is less than 5.5 times that same number.

 **17. HOTELS** The Lincoln’s hotel room costs $90 a night. An additional 10% tax is added. Hotel parking is $12 per day. The Lincoln’s expect to spend $30 in tips during their stay. Solve the inequality 90*x* + 90(0.1)*x* + 12*x* + 30 ≤ 600 to find how many nights the Lincoln’s can stay at the hotel without exceeding total hotel costs of $600.

 **18. BANKING** Jan’s account balance is $3800. Of this, $750 is for rent. Jan wants to keep a balance of at least $500. Write and solve an inequality describing how much she can withdraw and still leave enough for rent and a $500 balance.