

Use substitution to determine whether the value given for the variable is a solution to the given inequality. Write TRUE or FALSE and Show all work to get credit.

8) $15 - m \geq 4$ if $m = 11$

$$15 - 11 \geq 4$$

$$4 \geq 4 \quad \text{TRUE}$$

9) $15 \leq \frac{a}{10}$ if $a = 153$

$$15 \leq \frac{153}{10}$$

$$15 \leq 15.3 \quad \text{TRUE}$$

10) $8 > \frac{64}{r}$ if $r = 16$

$$8 > \frac{64}{16}$$

$$8 > 4 \quad \text{TRUE}$$

11) $76 \geq 19h$ if $h = 4$

$$76 \geq 19(4)$$

$$76 \geq 76 \quad \text{TRUE}$$

12) $22 < 19 + h$ if $h = 5$

$$22 < 19 + 5$$

$$22 < 24 \quad \text{TRUE}$$

13) $124 \leq 15z$ if $z = 5$

$$124 \leq 15(5)$$

$$124 \leq 75 \quad \text{FALSE}$$

14) $2v > 24$ if $v = 12$

$$2(12) > 24$$

$$24 > 24 \quad \text{FALSE}$$

15) $\frac{n}{5} < 16$ if $n = 57$

$$\frac{57}{5} < 16$$

$$11.4 < 16 \quad \text{TRUE}$$

$$\begin{array}{r} 11.4 \\ 5 \overline{) 57.0} \\ \underline{-50} \\ 70 \\ \underline{-70} \\ 0 \end{array}$$

16) $\frac{72}{e} < 12$ if $m = 17$

$$\frac{72}{17} < 12$$

$$4.235 \dots < 12 \quad \text{TRUE}$$

$$\begin{array}{r} 4 \\ 17 \overline{) 72} \\ \underline{68} \\ 4 \end{array} \quad \frac{2}{17} \frac{4}{8}$$

17) $29 - u \geq 9$ if $u = 20$

$$29 - 20 \geq 9$$

$$9 \geq 9 \quad \text{TRUE}$$

18) $a + 16 > 30$ if $a = 14$

$$14 + 16 > 30$$

$$30 > 30 \quad \text{FALSE}$$

19) $38 > 32 + z$ if $z = 13$

$$38 > 32 + 13$$

$$38 > 45 \quad \text{FALSE}$$

20) $16 - j < 3$ if $j = 13$

$$16 - 13 < 3$$

$$3 < 3 \quad \text{FALSE}$$

21) $21 \geq 7r$ if $r = 3$

$$21 \geq 7(3)$$

$$21 \geq 21 \quad \text{TRUE}$$

22) $10h \leq 62$ if $h = 11$

$$10(11) \leq 62$$

$$110 \leq 62 \quad \text{FALSE}$$

23) $\frac{30}{k} \leq 6$ if $k = 3$

$$\frac{30}{3} \leq 6$$

$$10 \leq 6 \quad \text{FALSE}$$

24) $28 + d > 37$ if $d = 6$

$$28 + 6 > 37$$

$$34 > 37 \quad \text{FALSE}$$

25) $17 \geq \frac{w}{4}$ if $w = 78$

$$17 \geq \frac{78}{4}$$

$$17 \geq 19.5 \quad \text{FALSE}$$

$$\begin{array}{r} 19.5 \\ 4 \overline{) 78.0} \\ \underline{40} \\ 38 \\ \underline{-36} \\ 20 \end{array}$$

26) $15 \leq 22 - g$ if $g = 19$

$$15 \leq 22 - 19$$

$$15 \leq 3 \quad \text{FALSE}$$

27) $18r \leq 198$ if $r = 12$

$$18(12) \leq 198$$

$$216 \leq 198 \quad \text{FALSE}$$

$$\begin{array}{r} 18 \\ 18 \overline{) 198} \\ \underline{36} \\ 180 \\ \underline{-180} \\ 0 \end{array}$$