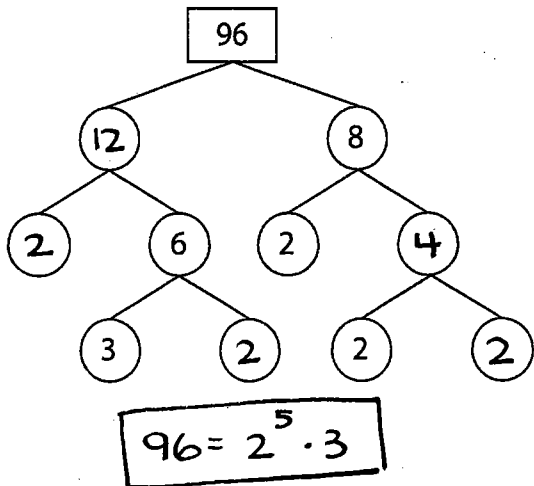


Name: _____

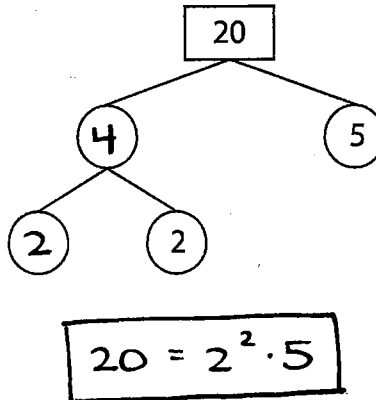
Prime Factor Tree

Complete the prime factor tree for each number.

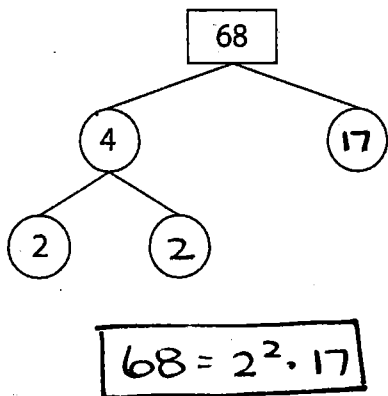
1)



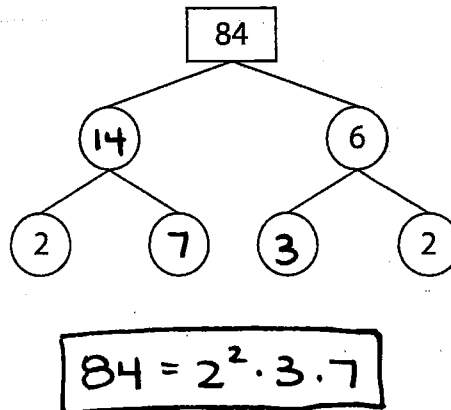
2)



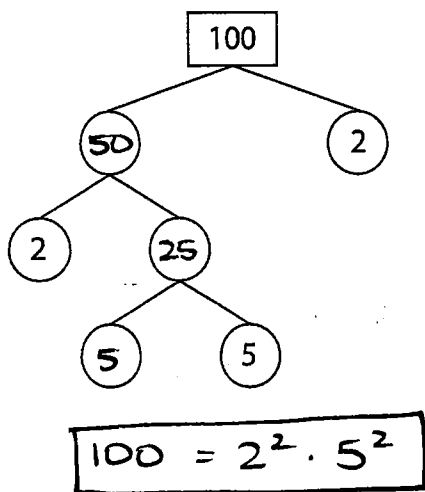
3)



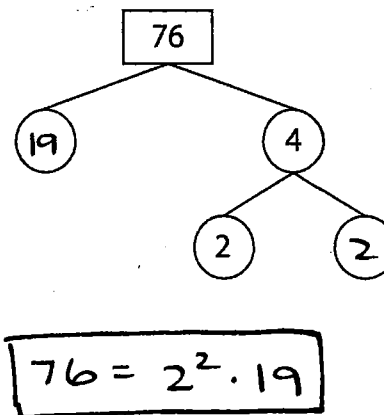
4)



5)



6)

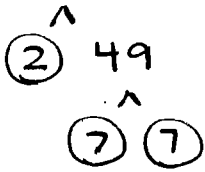


Name: _____

Prime Factor Tree

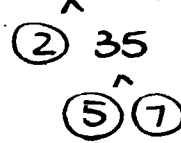
Draw a prime factor tree for each number.

1) 98



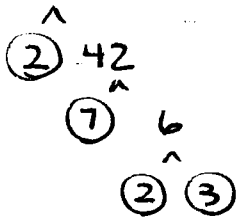
$$98 = 2 \cdot 7^2$$

2) 70



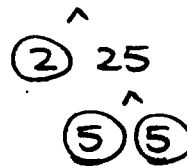
$$70 = 2 \cdot 5 \cdot 7$$

3) 84



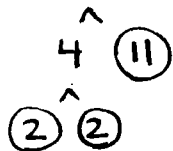
$$84 = 2^2 \cdot 3 \cdot 7$$

4) 50



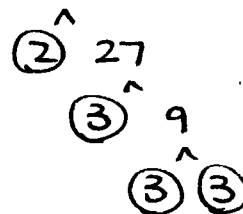
$$50 = 2 \cdot 5^2$$

5) 44



$$44 = 2^2 \cdot 11$$

6) 54



$$54 = 2 \cdot 3^3$$

Name: _____

Prime Factorization

Write each number in prime factor form.

1) $72 < \overset{\textcircled{2}}{36} < \overset{\textcircled{2}}{18} < \overset{\textcircled{2}}{9} < \overset{\textcircled{3}}{\overset{\textcircled{3}}{3}}$

$72 = 2^3 \cdot 3^2$

2) 36

$36 = 2^2 \cdot 3^2$

3) $48 < 4 = \overset{\textcircled{2}}{\overset{\textcircled{2}}{2}} < \overset{\textcircled{2}}{\overset{\textcircled{2}}{6}} < \overset{\textcircled{2}}{\overset{\textcircled{2}}{12}} < \overset{\textcircled{2}}{\overset{\textcircled{2}}{24}} < \overset{\textcircled{2}}{\overset{\textcircled{2}}{48}}$

$48 = 2^4 \cdot 3$

4) $81 < 9 < \overset{\textcircled{3}}{\overset{\textcircled{3}}{3}} < \overset{\textcircled{3}}{\overset{\textcircled{3}}{27}} < \overset{\textcircled{3}}{\overset{\textcircled{3}}{81}}$

$81 = 3^4$

5) 15

$15 = 3 \cdot 5$

6) 39

$39 = 3 \cdot 13$

7) $96 < \overset{2}{48}$

$96 = 2^5 \cdot 3$

8) $64 < 8 < \overset{\textcircled{2}}{\overset{\textcircled{2}}{4}} < \overset{\textcircled{2}}{\overset{\textcircled{2}}{\overset{\textcircled{2}}{8}}} < \overset{\textcircled{2}}{\overset{\textcircled{2}}{\overset{\textcircled{2}}{\overset{\textcircled{2}}{16}}} < \overset{\textcircled{2}}{\overset{\textcircled{2}}{\overset{\textcircled{2}}{\overset{\textcircled{2}}{32}}} < \overset{\textcircled{2}}{\overset{\textcircled{2}}{\overset{\textcircled{2}}{\overset{\textcircled{2}}{64}}}$

$64 = 2^6$

9) $32 < \overset{\textcircled{2}}{16} < \overset{\textcircled{2}}{\overset{\textcircled{2}}{8}} < \overset{\textcircled{2}}{\overset{\textcircled{2}}{4}} < \overset{\textcircled{2}}{\overset{\textcircled{2}}{2}}$

$32 = 2^5$

10) $18 < \overset{\textcircled{2}}{9} < \overset{\textcircled{3}}{\overset{\textcircled{3}}{3}}$

$18 = 2 \cdot 3^2$

11) 62

$62 = 2 \cdot 31$

12) 55

$55 = 5 \cdot 11$

Name: _____

Prime Factorization

Write each number in prime factor form.

1) $760 < \begin{matrix} 10 < \textcircled{2} \\ & \textcircled{5} \\ 76 < \textcircled{2} \\ & 38 < \textcircled{2} \\ & & \textcircled{19} \end{matrix}$

$760 = 2^3 \cdot 5 \cdot 19$

2) $999 < \begin{matrix} 9 < \textcircled{3} \\ & \textcircled{3} \\ 111 < \textcircled{3} \\ & \textcircled{37} \end{matrix}$

$999 = 3^3 \cdot 37$

3) $524 < \begin{matrix} \textcircled{2} \\ 262 < \textcircled{2} \\ & \textcircled{131} \end{matrix}$

$524 = 2^2 \cdot 131$

4) $150 < \begin{matrix} \textcircled{2} \\ 10 < \textcircled{2} \\ & \textcircled{5} \\ 15 < \textcircled{3} \\ & \textcircled{5} \end{matrix}$

$150 = 2 \cdot 3 \cdot 5^2$

5) $189 < \begin{matrix} \textcircled{3} \\ 63 < \textcircled{7} \\ & 9 < \textcircled{3} \\ & & \textcircled{3} \end{matrix}$

$189 = 3^3 \cdot 7$

6) $464 < \begin{matrix} \textcircled{2} \\ 4 < \textcircled{2} \\ & \textcircled{2} \\ 116 < \textcircled{2} \\ & 58 < \textcircled{2} \\ & & \textcircled{29} \end{matrix}$

$464 = 4^2 \cdot 29$

7) $60 < \begin{matrix} \textcircled{2} \\ 30 < \textcircled{2} \\ & 15 < \textcircled{3} \\ & & \textcircled{5} \end{matrix}$

$60 = 2^2 \cdot 3 \cdot 5$

8) $536 < \begin{matrix} \textcircled{2} \\ 268 < \textcircled{2} \\ & 134 < \textcircled{2} \\ & & \textcircled{67} \end{matrix}$

$536 = 2^3 \cdot 67$

9) $333 < \begin{matrix} \textcircled{3} \\ 111 < \textcircled{3} \\ & \textcircled{37} \end{matrix}$

$333 = 3^2 \cdot 37$

10) $48 < \begin{matrix} \textcircled{2} \\ 24 < \textcircled{2} \\ & 12 < \textcircled{2} \\ & & 6 < \textcircled{2} \\ & & & \textcircled{3} \end{matrix}$

$48 = 2^4 \cdot 3$

11) $92 < \begin{matrix} \textcircled{2} \\ 46 < \textcircled{2} \\ & \textcircled{23} \end{matrix}$

$92 = 2^2 \cdot 23$

12) $710 < \begin{matrix} \textcircled{71} \\ 10 < \textcircled{2} \\ & \textcircled{5} \end{matrix}$

$710 = 2 \cdot 5 \cdot 71$