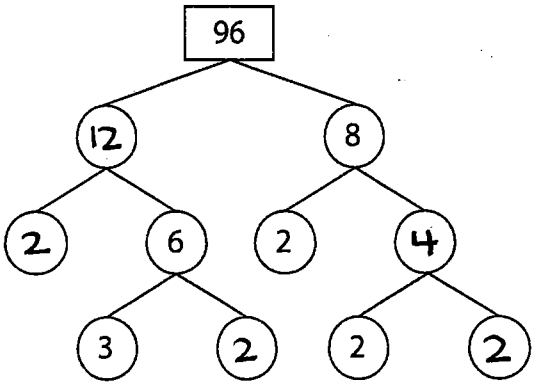
Name : _____

Prime Factor Tree

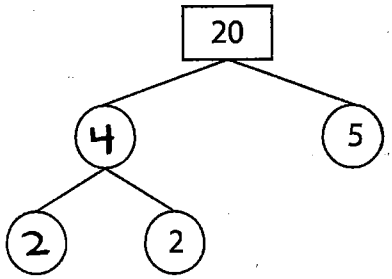
Complete the prime factor tree for each number.

1)



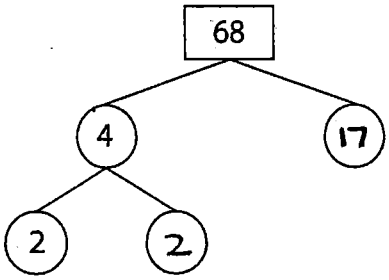
$96 = 2^5 \cdot 3$

2)



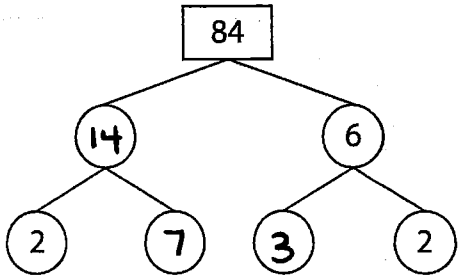
$20 = 2^2 \cdot 5$

3)



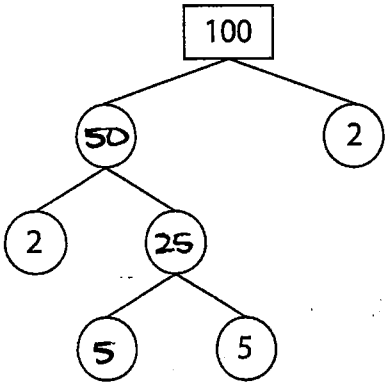
$68 = 2^2 \cdot 17$

4)



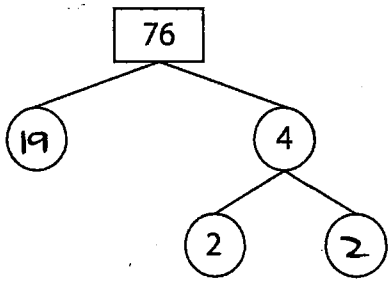
$84 = 2^2 \cdot 3 \cdot 7$

5)



$100 = 2^2 \cdot 5^2$

6)



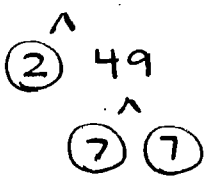
$76 = 2^2 \cdot 19$

Name : _____

Prime Factor Tree

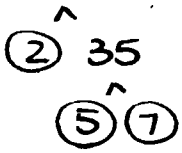
Draw a prime factor tree for each number.

1) 98



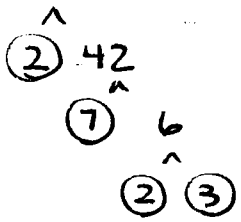
$98 = 2 \cdot 7^2$

2) 70



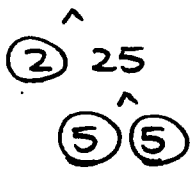
$70 = 2 \cdot 5 \cdot 7$

3) 84



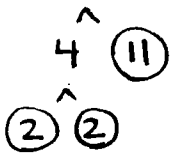
$84 = 2^2 \cdot 3 \cdot 7$

4) 50



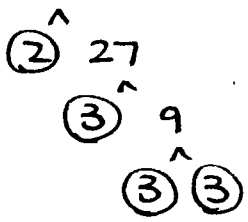
$50 = 2 \cdot 5^2$

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 $< 36 < 18 < 9 < 3 \cdot 3$

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

2) 36

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

3) 48 $< 4 < 2 \cdot 2$, $12 < 2 \cdot 6 < 2 \cdot 3$

$48 = 2^4 \cdot 3$

4) 81 $< 9 < 3 \cdot 3$, $9 < 3 \cdot 3$

$81 = 3^4$

5) 15

$15 = 3 \cdot 5$

6) 39

$39 = 3 \cdot 13$

7) 96 $< 2 \cdot 48$

$96 = 2^5 \cdot 3$

8) 64 $< 8 < 2 \cdot 4 < 2 \cdot 2$, $8 < 2 \cdot 4 < 2 \cdot 2$

$64 = 2^6$

9) 32 $< 2 \cdot 16 < 2 \cdot 8 < 2 \cdot 4 < 2 \cdot 2$

$32 = 2^5$

10) 18 $< 2 \cdot 9 < 3 \cdot 3$

$18 = 2 \cdot 3^2$

11) 62

$62 = 2 \cdot 31$

12) 55

$55 = 5 \cdot 11$

Name : _____

Prime Factorization

Write each number in prime factor form.

1) $760 < 10 < 2 \cdot 5$, $76 < 2 \cdot 38 < 2 \cdot 19$

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

2) $999 < 9 < 3 \cdot 3$, $111 < 3 \cdot 37$

$999 = 3^3 \cdot 37$

3) $524 < 2 \cdot 262 < 2 \cdot 131$

$524 = 2^2 \cdot 131$

4) $150 < 10 < 2 \cdot 5$, $15 < 3 \cdot 5$

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

5) $189 < 3 \cdot 63 < 9 < 3 \cdot 3$, 7

$189 = 3^3 \cdot 7$

6) $464 < 4 < 2 \cdot 2$, $116 < 2 \cdot 58 < 2 \cdot 29$

$464 = 4^2 \cdot 29$

7) $60 < 2 \cdot 30 < 2 \cdot 15 < 3 \cdot 5$

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

8) $536 < 2 \cdot 268 < 2 \cdot 134 < 2 \cdot 67$

$536 = 2^3 \cdot 67$

9) $333 < 3 \cdot 111 < 3 \cdot 37$

$333 = 3^2 \cdot 37$

10) $48 < 2 \cdot 24 < 2 \cdot 12 < 2 \cdot 6 < 2 \cdot 3$

$48 = 2^4 \cdot 3$

11) $92 < 2 \cdot 46 < 2 \cdot 23$

$92 = 2^2 \cdot 23$

12) $710 < 71 \cdot 10 < 2 \cdot 5$

$710 = 2 \cdot 5 \cdot 71$