

**Question 1** [25 marks]

- 0: primes(4) =  $2^2$
- 1: primes(7) = \_\_\_\_\_
- 2: primes(8) = \_\_\_\_\_
- 3: primes(4) = \_\_\_\_\_
- 4: primes(5) = \_\_\_\_\_
- 5: primes(7) = \_\_\_\_\_
- 6: primes(3) = \_\_\_\_\_
- 7: primes(3) = \_\_\_\_\_
- 8: primes(4) = \_\_\_\_\_
- 9: primes(4) = \_\_\_\_\_
- 10: primes(2) = \_\_\_\_\_
- 11: primes(7) = \_\_\_\_\_
- 12: primes(8) = \_\_\_\_\_
- 13: primes(2) = \_\_\_\_\_
- 14: primes(5) = \_\_\_\_\_
- 15: primes(6) = \_\_\_\_\_
- 16: primes(10) = \_\_\_\_\_
- 17: primes(6) = \_\_\_\_\_
- 18: primes(4) = \_\_\_\_\_
- 19: primes(7) = \_\_\_\_\_
- 20: primes(8) = \_\_\_\_\_
- 21: primes(9) = \_\_\_\_\_
- 22: primes(2) = \_\_\_\_\_
- 23: primes(8) = \_\_\_\_\_
- 24: primes(4) = \_\_\_\_\_
- 25: primes(9) = \_\_\_\_\_

**Question 2** [25 marks]

- 0: primes(4) =  $2^2$
- 1: primes(9) = \_\_\_\_\_
- 2: primes(10) = \_\_\_\_\_
- 3: primes(5) = \_\_\_\_\_
- 4: primes(6) = \_\_\_\_\_
- 5: primes(6) = \_\_\_\_\_
- 6: primes(9) = \_\_\_\_\_
- 7: primes(3) = \_\_\_\_\_
- 8: primes(6) = \_\_\_\_\_
- 9: primes(2) = \_\_\_\_\_
- 10: primes(10) = \_\_\_\_\_
- 11: primes(7) = \_\_\_\_\_
- 12: primes(2) = \_\_\_\_\_
- 13: primes(10) = \_\_\_\_\_
- 14: primes(10) = \_\_\_\_\_
- 15: primes(4) = \_\_\_\_\_
- 16: primes(8) = \_\_\_\_\_
- 17: primes(5) = \_\_\_\_\_
- 18: primes(10) = \_\_\_\_\_
- 19: primes(6) = \_\_\_\_\_
- 20: primes(6) = \_\_\_\_\_
- 21: primes(6) = \_\_\_\_\_
- 22: primes(8) = \_\_\_\_\_
- 23: primes(9) = \_\_\_\_\_
- 24: primes(6) = \_\_\_\_\_
- 25: primes(3) = \_\_\_\_\_

**Question 3** [25 marks]

- 0: primes(10) =  $2^1 \times 5^1$
- 1: primes(2) = \_\_\_\_\_
- 2: primes(6) = \_\_\_\_\_
- 3: primes(7) = \_\_\_\_\_
- 4: primes(10) = \_\_\_\_\_
- 5: primes(8) = \_\_\_\_\_
- 6: primes(6) = \_\_\_\_\_
- 7: primes(3) = \_\_\_\_\_
- 8: primes(8) = \_\_\_\_\_
- 9: primes(4) = \_\_\_\_\_
- 10: primes(10) = \_\_\_\_\_
- 11: primes(7) = \_\_\_\_\_
- 12: primes(2) = \_\_\_\_\_
- 13: primes(7) = \_\_\_\_\_
- 14: primes(7) = \_\_\_\_\_
- 15: primes(8) = \_\_\_\_\_
- 16: primes(9) = \_\_\_\_\_
- 17: primes(9) = \_\_\_\_\_
- 18: primes(7) = \_\_\_\_\_
- 19: primes(8) = \_\_\_\_\_
- 20: primes(4) = \_\_\_\_\_
- 21: primes(4) = \_\_\_\_\_
- 22: primes(10) = \_\_\_\_\_
- 23: primes(7) = \_\_\_\_\_
- 24: primes(3) = \_\_\_\_\_
- 25: primes(5) = \_\_\_\_\_

**Question 4** [25 marks]

- 0: primes(9) =  $3^2$
- 1: primes(9) = \_\_\_\_\_
- 2: primes(6) = \_\_\_\_\_
- 3: primes(7) = \_\_\_\_\_
- 4: primes(8) = \_\_\_\_\_
- 5: primes(8) = \_\_\_\_\_
- 6: primes(7) = \_\_\_\_\_
- 7: primes(7) = \_\_\_\_\_
- 8: primes(9) = \_\_\_\_\_
- 9: primes(4) = \_\_\_\_\_
- 10: primes(10) = \_\_\_\_\_
- 11: primes(10) = \_\_\_\_\_
- 12: primes(2) = \_\_\_\_\_
- 13: primes(10) = \_\_\_\_\_
- 14: primes(2) = \_\_\_\_\_
- 15: primes(4) = \_\_\_\_\_
- 16: primes(8) = \_\_\_\_\_
- 17: primes(10) = \_\_\_\_\_
- 18: primes(10) = \_\_\_\_\_
- 19: primes(8) = \_\_\_\_\_
- 20: primes(7) = \_\_\_\_\_
- 21: primes(8) = \_\_\_\_\_
- 22: primes(6) = \_\_\_\_\_
- 23: primes(7) = \_\_\_\_\_
- 24: primes(3) = \_\_\_\_\_
- 25: primes(7) = \_\_\_\_\_

**Question 5** [25 marks]

- 0:  $\text{primes}(7) = 7^1$
- 1:  $\text{primes}(9) = \underline{\hspace{2cm}}$
- 2:  $\text{primes}(10) = \underline{\hspace{2cm}}$
- 3:  $\text{primes}(6) = \underline{\hspace{2cm}}$
- 4:  $\text{primes}(7) = \underline{\hspace{2cm}}$
- 5:  $\text{primes}(2) = \underline{\hspace{2cm}}$
- 6:  $\text{primes}(8) = \underline{\hspace{2cm}}$
- 7:  $\text{primes}(8) = \underline{\hspace{2cm}}$
- 8:  $\text{primes}(5) = \underline{\hspace{2cm}}$
- 9:  $\text{primes}(7) = \underline{\hspace{2cm}}$
- 10:  $\text{primes}(8) = \underline{\hspace{2cm}}$
- 11:  $\text{primes}(6) = \underline{\hspace{2cm}}$
- 12:  $\text{primes}(5) = \underline{\hspace{2cm}}$
- 13:  $\text{primes}(8) = \underline{\hspace{2cm}}$
- 14:  $\text{primes}(4) = \underline{\hspace{2cm}}$
- 15:  $\text{primes}(2) = \underline{\hspace{2cm}}$
- 16:  $\text{primes}(4) = \underline{\hspace{2cm}}$
- 17:  $\text{primes}(5) = \underline{\hspace{2cm}}$
- 18:  $\text{primes}(4) = \underline{\hspace{2cm}}$
- 19:  $\text{primes}(9) = \underline{\hspace{2cm}}$
- 20:  $\text{primes}(6) = \underline{\hspace{2cm}}$
- 21:  $\text{primes}(9) = \underline{\hspace{2cm}}$
- 22:  $\text{primes}(10) = \underline{\hspace{2cm}}$
- 23:  $\text{primes}(8) = \underline{\hspace{2cm}}$
- 24:  $\text{primes}(6) = \underline{\hspace{2cm}}$
- 25:  $\text{primes}(8) = \underline{\hspace{2cm}}$

**Question 6** [25 marks]

- 0:  $\text{primes}(3) = 3^1$
- 1:  $\text{primes}(5) = \underline{\hspace{2cm}}$
- 2:  $\text{primes}(6) = \underline{\hspace{2cm}}$
- 3:  $\text{primes}(7) = \underline{\hspace{2cm}}$
- 4:  $\text{primes}(8) = \underline{\hspace{2cm}}$
- 5:  $\text{primes}(5) = \underline{\hspace{2cm}}$
- 6:  $\text{primes}(2) = \underline{\hspace{2cm}}$
- 7:  $\text{primes}(4) = \underline{\hspace{2cm}}$
- 8:  $\text{primes}(5) = \underline{\hspace{2cm}}$
- 9:  $\text{primes}(2) = \underline{\hspace{2cm}}$
- 10:  $\text{primes}(3) = \underline{\hspace{2cm}}$
- 11:  $\text{primes}(3) = \underline{\hspace{2cm}}$
- 12:  $\text{primes}(8) = \underline{\hspace{2cm}}$
- 13:  $\text{primes}(10) = \underline{\hspace{2cm}}$
- 14:  $\text{primes}(3) = \underline{\hspace{2cm}}$
- 15:  $\text{primes}(9) = \underline{\hspace{2cm}}$
- 16:  $\text{primes}(8) = \underline{\hspace{2cm}}$
- 17:  $\text{primes}(4) = \underline{\hspace{2cm}}$
- 18:  $\text{primes}(2) = \underline{\hspace{2cm}}$
- 19:  $\text{primes}(8) = \underline{\hspace{2cm}}$
- 20:  $\text{primes}(7) = \underline{\hspace{2cm}}$
- 21:  $\text{primes}(4) = \underline{\hspace{2cm}}$
- 22:  $\text{primes}(4) = \underline{\hspace{2cm}}$
- 23:  $\text{primes}(9) = \underline{\hspace{2cm}}$
- 24:  $\text{primes}(2) = \underline{\hspace{2cm}}$
- 25:  $\text{primes}(3) = \underline{\hspace{2cm}}$

**Question 7** [25 marks]

- 0: primes(5) =  $5^1$
- 1: primes(7) = \_\_\_\_\_
- 2: primes(8) = \_\_\_\_\_
- 3: primes(5) = \_\_\_\_\_
- 4: primes(6) = \_\_\_\_\_
- 5: primes(8) = \_\_\_\_\_
- 6: primes(5) = \_\_\_\_\_
- 7: primes(2) = \_\_\_\_\_
- 8: primes(4) = \_\_\_\_\_
- 9: primes(8) = \_\_\_\_\_
- 10: primes(8) = \_\_\_\_\_
- 11: primes(3) = \_\_\_\_\_
- 12: primes(10) = \_\_\_\_\_
- 13: primes(7) = \_\_\_\_\_
- 14: primes(9) = \_\_\_\_\_
- 15: primes(9) = \_\_\_\_\_
- 16: primes(6) = \_\_\_\_\_
- 17: primes(6) = \_\_\_\_\_
- 18: primes(3) = \_\_\_\_\_
- 19: primes(5) = \_\_\_\_\_
- 20: primes(4) = \_\_\_\_\_
- 21: primes(2) = \_\_\_\_\_
- 22: primes(6) = \_\_\_\_\_
- 23: primes(6) = \_\_\_\_\_
- 24: primes(9) = \_\_\_\_\_
- 25: primes(6) = \_\_\_\_\_

**Question 8** [25 marks]

- 0: primes(6) =  $2^1 \times 3^1$
- 1: primes(6) = \_\_\_\_\_
- 2: primes(6) = \_\_\_\_\_
- 3: primes(10) = \_\_\_\_\_
- 4: primes(2) = \_\_\_\_\_
- 5: primes(3) = \_\_\_\_\_
- 6: primes(4) = \_\_\_\_\_
- 7: primes(8) = \_\_\_\_\_
- 8: primes(7) = \_\_\_\_\_
- 9: primes(9) = \_\_\_\_\_
- 10: primes(9) = \_\_\_\_\_
- 11: primes(9) = \_\_\_\_\_
- 12: primes(6) = \_\_\_\_\_
- 13: primes(2) = \_\_\_\_\_
- 14: primes(2) = \_\_\_\_\_
- 15: primes(2) = \_\_\_\_\_
- 16: primes(8) = \_\_\_\_\_
- 17: primes(9) = \_\_\_\_\_
- 18: primes(3) = \_\_\_\_\_
- 19: primes(9) = \_\_\_\_\_
- 20: primes(8) = \_\_\_\_\_
- 21: primes(6) = \_\_\_\_\_
- 22: primes(9) = \_\_\_\_\_
- 23: primes(3) = \_\_\_\_\_
- 24: primes(3) = \_\_\_\_\_
- 25: primes(3) = \_\_\_\_\_

**Question 9** [25 marks]

- 0: primes(17) =  $17^1$
- 1: primes(92) = \_\_\_\_\_
- 2: primes(74) = \_\_\_\_\_
- 3: primes(78) = \_\_\_\_\_
- 4: primes(69) = \_\_\_\_\_
- 5: primes(99) = \_\_\_\_\_
- 6: primes(84) = \_\_\_\_\_
- 7: primes(14) = \_\_\_\_\_
- 8: primes(62) = \_\_\_\_\_
- 9: primes(31) = \_\_\_\_\_
- 10: primes(24) = \_\_\_\_\_
- 11: primes(23) = \_\_\_\_\_
- 12: primes(4) = \_\_\_\_\_
- 13: primes(62) = \_\_\_\_\_
- 14: primes(94) = \_\_\_\_\_
- 15: primes(73) = \_\_\_\_\_
- 16: primes(84) = \_\_\_\_\_
- 17: primes(7) = \_\_\_\_\_
- 18: primes(6) = \_\_\_\_\_
- 19: primes(26) = \_\_\_\_\_
- 20: primes(72) = \_\_\_\_\_
- 21: primes(88) = \_\_\_\_\_
- 22: primes(71) = \_\_\_\_\_
- 23: primes(56) = \_\_\_\_\_
- 24: primes(92) = \_\_\_\_\_
- 25: primes(21) = \_\_\_\_\_

**Question 10** [25 marks]

- 0: primes(14) =  $2^1 \times 7^1$
- 1: primes(57) = \_\_\_\_\_
- 2: primes(26) = \_\_\_\_\_
- 3: primes(22) = \_\_\_\_\_
- 4: primes(21) = \_\_\_\_\_
- 5: primes(85) = \_\_\_\_\_
- 6: primes(30) = \_\_\_\_\_
- 7: primes(7) = \_\_\_\_\_
- 8: primes(68) = \_\_\_\_\_
- 9: primes(58) = \_\_\_\_\_
- 10: primes(79) = \_\_\_\_\_
- 11: primes(18) = \_\_\_\_\_
- 12: primes(54) = \_\_\_\_\_
- 13: primes(27) = \_\_\_\_\_
- 14: primes(52) = \_\_\_\_\_
- 15: primes(58) = \_\_\_\_\_
- 16: primes(61) = \_\_\_\_\_
- 17: primes(51) = \_\_\_\_\_
- 18: primes(53) = \_\_\_\_\_
- 19: primes(72) = \_\_\_\_\_
- 20: primes(21) = \_\_\_\_\_
- 21: primes(25) = \_\_\_\_\_
- 22: primes(17) = \_\_\_\_\_
- 23: primes(13) = \_\_\_\_\_
- 24: primes(16) = \_\_\_\_\_
- 25: primes(54) = \_\_\_\_\_

**Question 11** [25 marks]

- 0: primes(11) =  $11^1$
- 1: primes(79) = \_\_\_\_\_
- 2: primes(67) = \_\_\_\_\_
- 3: primes(78) = \_\_\_\_\_
- 4: primes(86) = \_\_\_\_\_
- 5: primes(25) = \_\_\_\_\_
- 6: primes(17) = \_\_\_\_\_
- 7: primes(18) = \_\_\_\_\_
- 8: primes(71) = \_\_\_\_\_
- 9: primes(18) = \_\_\_\_\_
- 10: primes(45) = \_\_\_\_\_
- 11: primes(34) = \_\_\_\_\_
- 12: primes(85) = \_\_\_\_\_
- 13: primes(33) = \_\_\_\_\_
- 14: primes(51) = \_\_\_\_\_
- 15: primes(90) = \_\_\_\_\_
- 16: primes(18) = \_\_\_\_\_
- 17: primes(88) = \_\_\_\_\_
- 18: primes(85) = \_\_\_\_\_
- 19: primes(29) = \_\_\_\_\_
- 20: primes(44) = \_\_\_\_\_
- 21: primes(53) = \_\_\_\_\_
- 22: primes(32) = \_\_\_\_\_
- 23: primes(9) = \_\_\_\_\_
- 24: primes(69) = \_\_\_\_\_
- 25: primes(83) = \_\_\_\_\_

**Question 12** [25 marks]

- 0: primes(32) =  $2^5$
- 1: primes(20) = \_\_\_\_\_
- 2: primes(16) = \_\_\_\_\_
- 3: primes(9) = \_\_\_\_\_
- 4: primes(86) = \_\_\_\_\_
- 5: primes(62) = \_\_\_\_\_
- 6: primes(56) = \_\_\_\_\_
- 7: primes(62) = \_\_\_\_\_
- 8: primes(23) = \_\_\_\_\_
- 9: primes(3) = \_\_\_\_\_
- 10: primes(45) = \_\_\_\_\_
- 11: primes(6) = \_\_\_\_\_
- 12: primes(86) = \_\_\_\_\_
- 13: primes(8) = \_\_\_\_\_
- 14: primes(95) = \_\_\_\_\_
- 15: primes(6) = \_\_\_\_\_
- 16: primes(64) = \_\_\_\_\_
- 17: primes(25) = \_\_\_\_\_
- 18: primes(35) = \_\_\_\_\_
- 19: primes(66) = \_\_\_\_\_
- 20: primes(17) = \_\_\_\_\_
- 21: primes(56) = \_\_\_\_\_
- 22: primes(87) = \_\_\_\_\_
- 23: primes(35) = \_\_\_\_\_
- 24: primes(98) = \_\_\_\_\_
- 25: primes(71) = \_\_\_\_\_

**Question 13** [25 marks]

- 0:  $\text{primes}(83) = 83^1$
- 1:  $\text{primes}(100) = \underline{\hspace{2cm}}$
- 2:  $\text{primes}(58) = \underline{\hspace{2cm}}$
- 3:  $\text{primes}(75) = \underline{\hspace{2cm}}$
- 4:  $\text{primes}(51) = \underline{\hspace{2cm}}$
- 5:  $\text{primes}(35) = \underline{\hspace{2cm}}$
- 6:  $\text{primes}(67) = \underline{\hspace{2cm}}$
- 7:  $\text{primes}(57) = \underline{\hspace{2cm}}$
- 8:  $\text{primes}(87) = \underline{\hspace{2cm}}$
- 9:  $\text{primes}(33) = \underline{\hspace{2cm}}$
- 10:  $\text{primes}(56) = \underline{\hspace{2cm}}$
- 11:  $\text{primes}(23) = \underline{\hspace{2cm}}$
- 12:  $\text{primes}(69) = \underline{\hspace{2cm}}$
- 13:  $\text{primes}(48) = \underline{\hspace{2cm}}$
- 14:  $\text{primes}(72) = \underline{\hspace{2cm}}$
- 15:  $\text{primes}(5) = \underline{\hspace{2cm}}$
- 16:  $\text{primes}(73) = \underline{\hspace{2cm}}$
- 17:  $\text{primes}(90) = \underline{\hspace{2cm}}$
- 18:  $\text{primes}(54) = \underline{\hspace{2cm}}$
- 19:  $\text{primes}(80) = \underline{\hspace{2cm}}$
- 20:  $\text{primes}(64) = \underline{\hspace{2cm}}$
- 21:  $\text{primes}(65) = \underline{\hspace{2cm}}$
- 22:  $\text{primes}(60) = \underline{\hspace{2cm}}$
- 23:  $\text{primes}(89) = \underline{\hspace{2cm}}$
- 24:  $\text{primes}(32) = \underline{\hspace{2cm}}$
- 25:  $\text{primes}(29) = \underline{\hspace{2cm}}$

**Question 14** [25 marks]

- 0:  $\text{primes}(9) = 3^2$
- 1:  $\text{primes}(8) = \underline{\hspace{2cm}}$
- 2:  $\text{primes}(82) = \underline{\hspace{2cm}}$
- 3:  $\text{primes}(48) = \underline{\hspace{2cm}}$
- 4:  $\text{primes}(8) = \underline{\hspace{2cm}}$
- 5:  $\text{primes}(98) = \underline{\hspace{2cm}}$
- 6:  $\text{primes}(9) = \underline{\hspace{2cm}}$
- 7:  $\text{primes}(96) = \underline{\hspace{2cm}}$
- 8:  $\text{primes}(46) = \underline{\hspace{2cm}}$
- 9:  $\text{primes}(4) = \underline{\hspace{2cm}}$
- 10:  $\text{primes}(34) = \underline{\hspace{2cm}}$
- 11:  $\text{primes}(63) = \underline{\hspace{2cm}}$
- 12:  $\text{primes}(15) = \underline{\hspace{2cm}}$
- 13:  $\text{primes}(57) = \underline{\hspace{2cm}}$
- 14:  $\text{primes}(69) = \underline{\hspace{2cm}}$
- 15:  $\text{primes}(91) = \underline{\hspace{2cm}}$
- 16:  $\text{primes}(85) = \underline{\hspace{2cm}}$
- 17:  $\text{primes}(7) = \underline{\hspace{2cm}}$
- 18:  $\text{primes}(5) = \underline{\hspace{2cm}}$
- 19:  $\text{primes}(42) = \underline{\hspace{2cm}}$
- 20:  $\text{primes}(99) = \underline{\hspace{2cm}}$
- 21:  $\text{primes}(19) = \underline{\hspace{2cm}}$
- 22:  $\text{primes}(30) = \underline{\hspace{2cm}}$
- 23:  $\text{primes}(71) = \underline{\hspace{2cm}}$
- 24:  $\text{primes}(88) = \underline{\hspace{2cm}}$
- 25:  $\text{primes}(40) = \underline{\hspace{2cm}}$

**Question 15** [25 marks]

- 0: primes(72) =  $2^3 \times 3^2$   
1: primes(85) = \_\_\_\_\_  
2: primes(91) = \_\_\_\_\_  
3: primes(48) = \_\_\_\_\_  
4: primes(70) = \_\_\_\_\_  
5: primes(62) = \_\_\_\_\_  
6: primes(18) = \_\_\_\_\_  
7: primes(97) = \_\_\_\_\_  
8: primes(13) = \_\_\_\_\_  
9: primes(48) = \_\_\_\_\_  
10: primes(19) = \_\_\_\_\_  
11: primes(83) = \_\_\_\_\_  
12: primes(60) = \_\_\_\_\_  
13: primes(69) = \_\_\_\_\_  
14: primes(50) = \_\_\_\_\_  
15: primes(9) = \_\_\_\_\_  
16: primes(24) = \_\_\_\_\_  
17: primes(86) = \_\_\_\_\_  
18: primes(56) = \_\_\_\_\_  
19: primes(69) = \_\_\_\_\_  
20: primes(95) = \_\_\_\_\_  
21: primes(53) = \_\_\_\_\_  
22: primes(60) = \_\_\_\_\_  
23: primes(90) = \_\_\_\_\_  
24: primes(24) = \_\_\_\_\_  
25: primes(93) = \_\_\_\_\_

**Question 16** [25 marks]

- 0: primes(86) =  $2^1 \times 43^1$   
1: primes(10) = \_\_\_\_\_  
2: primes(15) = \_\_\_\_\_  
3: primes(55) = \_\_\_\_\_  
4: primes(19) = \_\_\_\_\_  
5: primes(77) = \_\_\_\_\_  
6: primes(10) = \_\_\_\_\_  
7: primes(31) = \_\_\_\_\_  
8: primes(83) = \_\_\_\_\_  
9: primes(62) = \_\_\_\_\_  
10: primes(33) = \_\_\_\_\_  
11: primes(12) = \_\_\_\_\_  
12: primes(51) = \_\_\_\_\_  
13: primes(4) = \_\_\_\_\_  
14: primes(2) = \_\_\_\_\_  
15: primes(88) = \_\_\_\_\_  
16: primes(19) = \_\_\_\_\_  
17: primes(100) = \_\_\_\_\_  
18: primes(50) = \_\_\_\_\_  
19: primes(33) = \_\_\_\_\_  
20: primes(88) = \_\_\_\_\_  
21: primes(99) = \_\_\_\_\_  
22: primes(10) = \_\_\_\_\_  
23: primes(93) = \_\_\_\_\_  
24: primes(10) = \_\_\_\_\_  
25: primes(9) = \_\_\_\_\_



**Question 17** [25 marks]

- 0: primes(167) =  $167^1$
- 1: primes(143) = \_\_\_\_\_
- 2: primes(111) = \_\_\_\_\_
- 3: primes(111) = \_\_\_\_\_
- 4: primes(180) = \_\_\_\_\_
- 5: primes(179) = \_\_\_\_\_
- 6: primes(166) = \_\_\_\_\_
- 7: primes(134) = \_\_\_\_\_
- 8: primes(111) = \_\_\_\_\_
- 9: primes(153) = \_\_\_\_\_
- 10: primes(158) = \_\_\_\_\_
- 11: primes(119) = \_\_\_\_\_
- 12: primes(138) = \_\_\_\_\_
- 13: primes(129) = \_\_\_\_\_
- 14: primes(122) = \_\_\_\_\_
- 15: primes(140) = \_\_\_\_\_
- 16: primes(125) = \_\_\_\_\_
- 17: primes(168) = \_\_\_\_\_
- 18: primes(115) = \_\_\_\_\_
- 19: primes(110) = \_\_\_\_\_
- 20: primes(167) = \_\_\_\_\_
- 21: primes(127) = \_\_\_\_\_
- 22: primes(107) = \_\_\_\_\_
- 23: primes(131) = \_\_\_\_\_
- 24: primes(127) = \_\_\_\_\_
- 25: primes(190) = \_\_\_\_\_

**Question 18** [25 marks]

- 0: primes(157) =  $157^1$
- 1: primes(129) = \_\_\_\_\_
- 2: primes(118) = \_\_\_\_\_
- 3: primes(189) = \_\_\_\_\_
- 4: primes(162) = \_\_\_\_\_
- 5: primes(120) = \_\_\_\_\_
- 6: primes(105) = \_\_\_\_\_
- 7: primes(102) = \_\_\_\_\_
- 8: primes(170) = \_\_\_\_\_
- 9: primes(126) = \_\_\_\_\_
- 10: primes(116) = \_\_\_\_\_
- 11: primes(141) = \_\_\_\_\_
- 12: primes(196) = \_\_\_\_\_
- 13: primes(196) = \_\_\_\_\_
- 14: primes(196) = \_\_\_\_\_
- 15: primes(132) = \_\_\_\_\_
- 16: primes(185) = \_\_\_\_\_
- 17: primes(112) = \_\_\_\_\_
- 18: primes(146) = \_\_\_\_\_
- 19: primes(176) = \_\_\_\_\_
- 20: primes(174) = \_\_\_\_\_
- 21: primes(135) = \_\_\_\_\_
- 22: primes(177) = \_\_\_\_\_
- 23: primes(129) = \_\_\_\_\_
- 24: primes(154) = \_\_\_\_\_
- 25: primes(119) = \_\_\_\_\_

**Question 19** [25 marks]

- 0:  $\text{primes}(158) = 2^1 \times 79^1$
- 1:  $\text{primes}(158) = \underline{\hspace{2cm}}$
- 2:  $\text{primes}(165) = \underline{\hspace{2cm}}$
- 3:  $\text{primes}(192) = \underline{\hspace{2cm}}$
- 4:  $\text{primes}(192) = \underline{\hspace{2cm}}$
- 5:  $\text{primes}(176) = \underline{\hspace{2cm}}$
- 6:  $\text{primes}(101) = \underline{\hspace{2cm}}$
- 7:  $\text{primes}(147) = \underline{\hspace{2cm}}$
- 8:  $\text{primes}(197) = \underline{\hspace{2cm}}$
- 9:  $\text{primes}(164) = \underline{\hspace{2cm}}$
- 10:  $\text{primes}(191) = \underline{\hspace{2cm}}$
- 11:  $\text{primes}(105) = \underline{\hspace{2cm}}$
- 12:  $\text{primes}(175) = \underline{\hspace{2cm}}$
- 13:  $\text{primes}(138) = \underline{\hspace{2cm}}$
- 14:  $\text{primes}(100) = \underline{\hspace{2cm}}$
- 15:  $\text{primes}(131) = \underline{\hspace{2cm}}$
- 16:  $\text{primes}(108) = \underline{\hspace{2cm}}$
- 17:  $\text{primes}(190) = \underline{\hspace{2cm}}$
- 18:  $\text{primes}(110) = \underline{\hspace{2cm}}$
- 19:  $\text{primes}(114) = \underline{\hspace{2cm}}$
- 20:  $\text{primes}(175) = \underline{\hspace{2cm}}$
- 21:  $\text{primes}(115) = \underline{\hspace{2cm}}$
- 22:  $\text{primes}(158) = \underline{\hspace{2cm}}$
- 23:  $\text{primes}(106) = \underline{\hspace{2cm}}$
- 24:  $\text{primes}(126) = \underline{\hspace{2cm}}$
- 25:  $\text{primes}(149) = \underline{\hspace{2cm}}$

**Question 20** [25 marks]

- 0:  $\text{primes}(154) = 2^1 \times 7^1 \times 11^1$
- 1:  $\text{primes}(107) = \underline{\hspace{2cm}}$
- 2:  $\text{primes}(117) = \underline{\hspace{2cm}}$
- 3:  $\text{primes}(165) = \underline{\hspace{2cm}}$
- 4:  $\text{primes}(199) = \underline{\hspace{2cm}}$
- 5:  $\text{primes}(123) = \underline{\hspace{2cm}}$
- 6:  $\text{primes}(112) = \underline{\hspace{2cm}}$
- 7:  $\text{primes}(170) = \underline{\hspace{2cm}}$
- 8:  $\text{primes}(104) = \underline{\hspace{2cm}}$
- 9:  $\text{primes}(107) = \underline{\hspace{2cm}}$
- 10:  $\text{primes}(140) = \underline{\hspace{2cm}}$
- 11:  $\text{primes}(169) = \underline{\hspace{2cm}}$
- 12:  $\text{primes}(120) = \underline{\hspace{2cm}}$
- 13:  $\text{primes}(193) = \underline{\hspace{2cm}}$
- 14:  $\text{primes}(144) = \underline{\hspace{2cm}}$
- 15:  $\text{primes}(162) = \underline{\hspace{2cm}}$
- 16:  $\text{primes}(145) = \underline{\hspace{2cm}}$
- 17:  $\text{primes}(122) = \underline{\hspace{2cm}}$
- 18:  $\text{primes}(182) = \underline{\hspace{2cm}}$
- 19:  $\text{primes}(181) = \underline{\hspace{2cm}}$
- 20:  $\text{primes}(149) = \underline{\hspace{2cm}}$
- 21:  $\text{primes}(153) = \underline{\hspace{2cm}}$
- 22:  $\text{primes}(155) = \underline{\hspace{2cm}}$
- 23:  $\text{primes}(131) = \underline{\hspace{2cm}}$
- 24:  $\text{primes}(142) = \underline{\hspace{2cm}}$
- 25:  $\text{primes}(109) = \underline{\hspace{2cm}}$

**Question 21** [25 marks]

- 0: primes(165) =  $3^1 \times 5^1 \times 11^1$   
1: primes(190) = \_\_\_\_\_  
2: primes(186) = \_\_\_\_\_  
3: primes(148) = \_\_\_\_\_  
4: primes(167) = \_\_\_\_\_  
5: primes(170) = \_\_\_\_\_  
6: primes(197) = \_\_\_\_\_  
7: primes(135) = \_\_\_\_\_  
8: primes(178) = \_\_\_\_\_  
9: primes(183) = \_\_\_\_\_  
10: primes(187) = \_\_\_\_\_  
11: primes(148) = \_\_\_\_\_  
12: primes(177) = \_\_\_\_\_  
13: primes(187) = \_\_\_\_\_  
14: primes(100) = \_\_\_\_\_  
15: primes(151) = \_\_\_\_\_  
16: primes(125) = \_\_\_\_\_  
17: primes(137) = \_\_\_\_\_  
18: primes(115) = \_\_\_\_\_  
19: primes(159) = \_\_\_\_\_  
20: primes(183) = \_\_\_\_\_  
21: primes(104) = \_\_\_\_\_  
22: primes(163) = \_\_\_\_\_  
23: primes(120) = \_\_\_\_\_  
24: primes(159) = \_\_\_\_\_  
25: primes(163) = \_\_\_\_\_

**Question 22** [25 marks]

- 0: primes(121) =  $11^2$   
1: primes(186) = \_\_\_\_\_  
2: primes(102) = \_\_\_\_\_  
3: primes(105) = \_\_\_\_\_  
4: primes(200) = \_\_\_\_\_  
5: primes(144) = \_\_\_\_\_  
6: primes(180) = \_\_\_\_\_  
7: primes(106) = \_\_\_\_\_  
8: primes(188) = \_\_\_\_\_  
9: primes(137) = \_\_\_\_\_  
10: primes(111) = \_\_\_\_\_  
11: primes(165) = \_\_\_\_\_  
12: primes(116) = \_\_\_\_\_  
13: primes(156) = \_\_\_\_\_  
14: primes(139) = \_\_\_\_\_  
15: primes(197) = \_\_\_\_\_  
16: primes(162) = \_\_\_\_\_  
17: primes(200) = \_\_\_\_\_  
18: primes(110) = \_\_\_\_\_  
19: primes(190) = \_\_\_\_\_  
20: primes(142) = \_\_\_\_\_  
21: primes(194) = \_\_\_\_\_  
22: primes(102) = \_\_\_\_\_  
23: primes(128) = \_\_\_\_\_  
24: primes(126) = \_\_\_\_\_  
25: primes(186) = \_\_\_\_\_

**Question 23** [25 marks]

- 0: primes(167) =  $167^1$
- 1: primes(195) = \_\_\_\_\_
- 2: primes(186) = \_\_\_\_\_
- 3: primes(186) = \_\_\_\_\_
- 4: primes(101) = \_\_\_\_\_
- 5: primes(126) = \_\_\_\_\_
- 6: primes(129) = \_\_\_\_\_
- 7: primes(151) = \_\_\_\_\_
- 8: primes(136) = \_\_\_\_\_
- 9: primes(151) = \_\_\_\_\_
- 10: primes(138) = \_\_\_\_\_
- 11: primes(168) = \_\_\_\_\_
- 12: primes(186) = \_\_\_\_\_
- 13: primes(155) = \_\_\_\_\_
- 14: primes(196) = \_\_\_\_\_
- 15: primes(200) = \_\_\_\_\_
- 16: primes(164) = \_\_\_\_\_
- 17: primes(137) = \_\_\_\_\_
- 18: primes(133) = \_\_\_\_\_
- 19: primes(166) = \_\_\_\_\_
- 20: primes(188) = \_\_\_\_\_
- 21: primes(118) = \_\_\_\_\_
- 22: primes(148) = \_\_\_\_\_
- 23: primes(160) = \_\_\_\_\_
- 24: primes(129) = \_\_\_\_\_
- 25: primes(178) = \_\_\_\_\_

**Question 24** [25 marks]

- 0: primes(200) =  $2^3 \times 5^2$
- 1: primes(127) = \_\_\_\_\_
- 2: primes(141) = \_\_\_\_\_
- 3: primes(195) = \_\_\_\_\_
- 4: primes(129) = \_\_\_\_\_
- 5: primes(124) = \_\_\_\_\_
- 6: primes(124) = \_\_\_\_\_
- 7: primes(106) = \_\_\_\_\_
- 8: primes(178) = \_\_\_\_\_
- 9: primes(156) = \_\_\_\_\_
- 10: primes(108) = \_\_\_\_\_
- 11: primes(115) = \_\_\_\_\_
- 12: primes(153) = \_\_\_\_\_
- 13: primes(156) = \_\_\_\_\_
- 14: primes(156) = \_\_\_\_\_
- 15: primes(119) = \_\_\_\_\_
- 16: primes(120) = \_\_\_\_\_
- 17: primes(171) = \_\_\_\_\_
- 18: primes(109) = \_\_\_\_\_
- 19: primes(114) = \_\_\_\_\_
- 20: primes(104) = \_\_\_\_\_
- 21: primes(175) = \_\_\_\_\_
- 22: primes(124) = \_\_\_\_\_
- 23: primes(164) = \_\_\_\_\_
- 24: primes(183) = \_\_\_\_\_
- 25: primes(188) = \_\_\_\_\_

**Question 25** [25 marks]

- 0:  $\text{primes}(265) = 5^1 \times 53^1$
- 1:  $\text{primes}(367) = \underline{\hspace{2cm}}$
- 2:  $\text{primes}(331) = \underline{\hspace{2cm}}$
- 3:  $\text{primes}(438) = \underline{\hspace{2cm}}$
- 4:  $\text{primes}(367) = \underline{\hspace{2cm}}$
- 5:  $\text{primes}(245) = \underline{\hspace{2cm}}$
- 6:  $\text{primes}(297) = \underline{\hspace{2cm}}$
- 7:  $\text{primes}(232) = \underline{\hspace{2cm}}$
- 8:  $\text{primes}(437) = \underline{\hspace{2cm}}$
- 9:  $\text{primes}(334) = \underline{\hspace{2cm}}$
- 10:  $\text{primes}(303) = \underline{\hspace{2cm}}$
- 11:  $\text{primes}(262) = \underline{\hspace{2cm}}$
- 12:  $\text{primes}(317) = \underline{\hspace{2cm}}$
- 13:  $\text{primes}(427) = \underline{\hspace{2cm}}$
- 14:  $\text{primes}(455) = \underline{\hspace{2cm}}$
- 15:  $\text{primes}(378) = \underline{\hspace{2cm}}$
- 16:  $\text{primes}(430) = \underline{\hspace{2cm}}$
- 17:  $\text{primes}(416) = \underline{\hspace{2cm}}$
- 18:  $\text{primes}(397) = \underline{\hspace{2cm}}$
- 19:  $\text{primes}(432) = \underline{\hspace{2cm}}$
- 20:  $\text{primes}(340) = \underline{\hspace{2cm}}$
- 21:  $\text{primes}(314) = \underline{\hspace{2cm}}$
- 22:  $\text{primes}(341) = \underline{\hspace{2cm}}$
- 23:  $\text{primes}(369) = \underline{\hspace{2cm}}$
- 24:  $\text{primes}(500) = \underline{\hspace{2cm}}$
- 25:  $\text{primes}(227) = \underline{\hspace{2cm}}$

**Question 26** [25 marks]

- 0:  $\text{primes}(498) = 2^1 \times 3^1 \times 83^1$
- 1:  $\text{primes}(388) = \underline{\hspace{2cm}}$
- 2:  $\text{primes}(472) = \underline{\hspace{2cm}}$
- 3:  $\text{primes}(245) = \underline{\hspace{2cm}}$
- 4:  $\text{primes}(291) = \underline{\hspace{2cm}}$
- 5:  $\text{primes}(206) = \underline{\hspace{2cm}}$
- 6:  $\text{primes}(265) = \underline{\hspace{2cm}}$
- 7:  $\text{primes}(287) = \underline{\hspace{2cm}}$
- 8:  $\text{primes}(472) = \underline{\hspace{2cm}}$
- 9:  $\text{primes}(459) = \underline{\hspace{2cm}}$
- 10:  $\text{primes}(349) = \underline{\hspace{2cm}}$
- 11:  $\text{primes}(335) = \underline{\hspace{2cm}}$
- 12:  $\text{primes}(440) = \underline{\hspace{2cm}}$
- 13:  $\text{primes}(385) = \underline{\hspace{2cm}}$
- 14:  $\text{primes}(252) = \underline{\hspace{2cm}}$
- 15:  $\text{primes}(365) = \underline{\hspace{2cm}}$
- 16:  $\text{primes}(334) = \underline{\hspace{2cm}}$
- 17:  $\text{primes}(487) = \underline{\hspace{2cm}}$
- 18:  $\text{primes}(340) = \underline{\hspace{2cm}}$
- 19:  $\text{primes}(462) = \underline{\hspace{2cm}}$
- 20:  $\text{primes}(482) = \underline{\hspace{2cm}}$
- 21:  $\text{primes}(345) = \underline{\hspace{2cm}}$
- 22:  $\text{primes}(223) = \underline{\hspace{2cm}}$
- 23:  $\text{primes}(242) = \underline{\hspace{2cm}}$
- 24:  $\text{primes}(220) = \underline{\hspace{2cm}}$
- 25:  $\text{primes}(491) = \underline{\hspace{2cm}}$

**Question 27** [25 marks]

- 0: primes(354) =  $2^1 \times 3^1 \times 59^1$   
1: primes(365) = \_\_\_\_\_  
2: primes(339) = \_\_\_\_\_  
3: primes(456) = \_\_\_\_\_  
4: primes(500) = \_\_\_\_\_  
5: primes(246) = \_\_\_\_\_  
6: primes(265) = \_\_\_\_\_  
7: primes(280) = \_\_\_\_\_  
8: primes(272) = \_\_\_\_\_  
9: primes(336) = \_\_\_\_\_  
10: primes(345) = \_\_\_\_\_  
11: primes(322) = \_\_\_\_\_  
12: primes(434) = \_\_\_\_\_  
13: primes(372) = \_\_\_\_\_  
14: primes(343) = \_\_\_\_\_  
15: primes(439) = \_\_\_\_\_  
16: primes(242) = \_\_\_\_\_  
17: primes(492) = \_\_\_\_\_  
18: primes(215) = \_\_\_\_\_  
19: primes(271) = \_\_\_\_\_  
20: primes(351) = \_\_\_\_\_  
21: primes(344) = \_\_\_\_\_  
22: primes(211) = \_\_\_\_\_  
23: primes(466) = \_\_\_\_\_  
24: primes(284) = \_\_\_\_\_  
25: primes(422) = \_\_\_\_\_

**Question 28** [25 marks]

- 0: primes(372) =  $2^2 \times 3^1 \times 31^1$   
1: primes(293) = \_\_\_\_\_  
2: primes(376) = \_\_\_\_\_  
3: primes(298) = \_\_\_\_\_  
4: primes(302) = \_\_\_\_\_  
5: primes(294) = \_\_\_\_\_  
6: primes(424) = \_\_\_\_\_  
7: primes(415) = \_\_\_\_\_  
8: primes(410) = \_\_\_\_\_  
9: primes(252) = \_\_\_\_\_  
10: primes(373) = \_\_\_\_\_  
11: primes(221) = \_\_\_\_\_  
12: primes(357) = \_\_\_\_\_  
13: primes(205) = \_\_\_\_\_  
14: primes(323) = \_\_\_\_\_  
15: primes(256) = \_\_\_\_\_  
16: primes(267) = \_\_\_\_\_  
17: primes(383) = \_\_\_\_\_  
18: primes(429) = \_\_\_\_\_  
19: primes(410) = \_\_\_\_\_  
20: primes(396) = \_\_\_\_\_  
21: primes(205) = \_\_\_\_\_  
22: primes(455) = \_\_\_\_\_  
23: primes(448) = \_\_\_\_\_  
24: primes(404) = \_\_\_\_\_  
25: primes(429) = \_\_\_\_\_

**Question 29** [25 marks]

- 0: primes(357) =  $3^1 \times 7^1 \times 17^1$   
1: primes(343) = \_\_\_\_\_  
2: primes(395) = \_\_\_\_\_  
3: primes(397) = \_\_\_\_\_  
4: primes(211) = \_\_\_\_\_  
5: primes(212) = \_\_\_\_\_  
6: primes(212) = \_\_\_\_\_  
7: primes(273) = \_\_\_\_\_  
8: primes(260) = \_\_\_\_\_  
9: primes(206) = \_\_\_\_\_  
10: primes(227) = \_\_\_\_\_  
11: primes(422) = \_\_\_\_\_  
12: primes(274) = \_\_\_\_\_  
13: primes(473) = \_\_\_\_\_  
14: primes(314) = \_\_\_\_\_  
15: primes(267) = \_\_\_\_\_  
16: primes(481) = \_\_\_\_\_  
17: primes(460) = \_\_\_\_\_  
18: primes(421) = \_\_\_\_\_  
19: primes(320) = \_\_\_\_\_  
20: primes(391) = \_\_\_\_\_  
21: primes(214) = \_\_\_\_\_  
22: primes(227) = \_\_\_\_\_  
23: primes(475) = \_\_\_\_\_  
24: primes(303) = \_\_\_\_\_  
25: primes(292) = \_\_\_\_\_

**Question 30** [25 marks]

- 0: primes(374) =  $2^1 \times 11^1 \times 17^1$   
1: primes(432) = \_\_\_\_\_  
2: primes(460) = \_\_\_\_\_  
3: primes(376) = \_\_\_\_\_  
4: primes(203) = \_\_\_\_\_  
5: primes(275) = \_\_\_\_\_  
6: primes(448) = \_\_\_\_\_  
7: primes(306) = \_\_\_\_\_  
8: primes(435) = \_\_\_\_\_  
9: primes(339) = \_\_\_\_\_  
10: primes(459) = \_\_\_\_\_  
11: primes(497) = \_\_\_\_\_  
12: primes(388) = \_\_\_\_\_  
13: primes(400) = \_\_\_\_\_  
14: primes(343) = \_\_\_\_\_  
15: primes(229) = \_\_\_\_\_  
16: primes(480) = \_\_\_\_\_  
17: primes(432) = \_\_\_\_\_  
18: primes(348) = \_\_\_\_\_  
19: primes(485) = \_\_\_\_\_  
20: primes(306) = \_\_\_\_\_  
21: primes(332) = \_\_\_\_\_  
22: primes(401) = \_\_\_\_\_  
23: primes(283) = \_\_\_\_\_  
24: primes(296) = \_\_\_\_\_  
25: primes(466) = \_\_\_\_\_

**Question 31** [25 marks]

- 0: primes(420) =  $2^2 \times 3^1 \times 5^1 \times 7^1$   
1: primes(393) = \_\_\_\_\_  
2: primes(490) = \_\_\_\_\_  
3: primes(367) = \_\_\_\_\_  
4: primes(213) = \_\_\_\_\_  
5: primes(292) = \_\_\_\_\_  
6: primes(422) = \_\_\_\_\_  
7: primes(263) = \_\_\_\_\_  
8: primes(440) = \_\_\_\_\_  
9: primes(499) = \_\_\_\_\_  
10: primes(450) = \_\_\_\_\_  
11: primes(499) = \_\_\_\_\_  
12: primes(476) = \_\_\_\_\_  
13: primes(435) = \_\_\_\_\_  
14: primes(375) = \_\_\_\_\_  
15: primes(487) = \_\_\_\_\_  
16: primes(438) = \_\_\_\_\_  
17: primes(355) = \_\_\_\_\_  
18: primes(284) = \_\_\_\_\_  
19: primes(331) = \_\_\_\_\_  
20: primes(229) = \_\_\_\_\_  
21: primes(410) = \_\_\_\_\_  
22: primes(406) = \_\_\_\_\_  
23: primes(471) = \_\_\_\_\_  
24: primes(455) = \_\_\_\_\_  
25: primes(358) = \_\_\_\_\_

**Question 32** [25 marks]

- 0: primes(213) =  $3^1 \times 71^1$   
1: primes(314) = \_\_\_\_\_  
2: primes(471) = \_\_\_\_\_  
3: primes(419) = \_\_\_\_\_  
4: primes(478) = \_\_\_\_\_  
5: primes(208) = \_\_\_\_\_  
6: primes(235) = \_\_\_\_\_  
7: primes(378) = \_\_\_\_\_  
8: primes(356) = \_\_\_\_\_  
9: primes(453) = \_\_\_\_\_  
10: primes(411) = \_\_\_\_\_  
11: primes(414) = \_\_\_\_\_  
12: primes(487) = \_\_\_\_\_  
13: primes(330) = \_\_\_\_\_  
14: primes(275) = \_\_\_\_\_  
15: primes(397) = \_\_\_\_\_  
16: primes(377) = \_\_\_\_\_  
17: primes(459) = \_\_\_\_\_  
18: primes(434) = \_\_\_\_\_  
19: primes(389) = \_\_\_\_\_  
20: primes(437) = \_\_\_\_\_  
21: primes(351) = \_\_\_\_\_  
22: primes(234) = \_\_\_\_\_  
23: primes(338) = \_\_\_\_\_  
24: primes(245) = \_\_\_\_\_  
25: primes(346) = \_\_\_\_\_