Mole Fraction MCQs

Here are 15 MCQs based on mole fraction problems,

MCQs

1. A solution is prepared by mixing 7.78 moles of substance A and 0.35 moles of substance B. What is the mole fraction of substance A in the solution?
   a) 0.96
   b) 1.05
   c) 0.86
   d) 1.15

2. A solution is prepared by mixing 5.06 moles of substance A and 4.22 moles of substance B. What is the mole fraction of substance A in the solution?
   a) 0.55
   b) 0.60
   c) 0.49
   d) 0.65

3. A solution is prepared by mixing 2.53 moles of substance A and 1.70 moles of substance B. What is the mole fraction of substance A in the solution?
   a) 0.60
   b) 0.66
   c) 0.54
   d) 0.72

4. A solution is prepared by mixing 5.36 moles of substance A and 0.60 moles of substance B. What is the mole fraction of substance A in the solution?
   a) 0.90
   b) 0.99
   c) 0.81
   d) 1.08

5. A solution is prepared by mixing 1.14 moles of substance A and 1.36 moles of substance B. What is the mole fraction of substance A in the solution?
   a) 0.46
   b) 0.50
   c) 0.41
   d) 0.55

6. A solution is prepared by mixing 2.24 moles of substance A and 7.27 moles of substance B. What is the mole fraction of substance A in the solution?

a) 0.24
b) 0.26
c) 0.21
d) 0.28

7. A solution is prepared by mixing 5.46 moles of substance A and 4.10 moles of substance B. What is the mole fraction of substance A in the solution?
   a) 0.57
   b) 0.63
   c) 0.51
   d) 0.68

8. A solution is prepared by mixing 0.80 moles of substance A and 5.73 moles of substance B. What is the mole fraction of substance A in the solution?
   a) 0.12
   b) 0.14
   c) 0.11
   d) 0.15

9. A solution is prepared by mixing 2.79 moles of substance A and 4.63 moles of substance B. What is the mole fraction of substance A in the solution?
   a) 0.38
   b) 0.41
   c) 0.34
   d) 0.45

10. A solution is prepared by mixing 6.04 moles of substance A and 3.08 moles of substance B. What is the mole fraction of substance A in the solution?
    a) 0.66
    b) 0.73
    c) 0.60
    d) 0.79

11. A solution is prepared by mixing 0.79 moles of substance A and 0.52 moles of substance B. What is the mole fraction of substance A in the solution?
    a) 0.60
    b) 0.66
    c) 0.54
    d) 0.72

12. A solution is prepared by mixing 2.39 moles of substance A and 2.14 moles of substance B. What is the mole fraction of substance A in the solution?
    a) 0.53
    b) 0.58
    c) 0.47
    d) 0.63

13. A solution is prepared by mixing 3.57 moles of substance A and 1.96 moles of substance B. What is the mole fraction of substance A in the solution?

    a) 0.65
    b) 0.71
    c) 0.58
    d) 0.77

14. A solution is prepared by mixing 3.54 moles of substance A and 5.54 moles of substance B. What is the mole fraction of substance A in the solution?

    a) 0.39
    b) 0.43
    c) 0.35
    d) 0.47

15. A solution is prepared by mixing 8.29 moles of substance A and 1.56 moles of substance B. What is the mole fraction of substance A in the solution?

    a) 0.84
    b) 0.93
    c) 0.76
    d) 1.01

Answer Key

1. a) 0.96
2. a) 0.55
3. a) 0.60
4. a) 0.90
5. a) 0.46
6. a) 0.24
7. a) 0.57
8. a) 0.12
9. a) 0.38
10. a) 0.66
11. a) 0.60
12. a) 0.53
13. a) 0.65
14. a) 0.39
15. a) 0.84