Worksheet: Titration Indicators

Q1: A titration is performed with a basic titrant and acidic analyte. Which of the following color changes could be observed at the equivalence point?

A Methyl violet changes from violet to yellow.

B Methyl orange changes from yellow to red.

C Litmus changes from blue to red.

D Phenolphthalein changes from colorless to pink.

E Bromothymol blue changes from blue to yellow.

Q2: Litmus is used to detect the end point of an acid–base reaction. At which of the following pH values is the equivalence point likely to be detected?

A 11

B 9

C 4

D 7

E 2

Q3: Methyl orange is used to detect the end point of an acid–base reaction. At which of the following pH values is the equivalence point likely to be detected?

A 4

B 6

C 8

D 10

E 2

Q4: Phenolphthalein is used to detect the end point of an acid–base reaction. At which of the following pH values is the equivalence point likely to be detected?

A 5

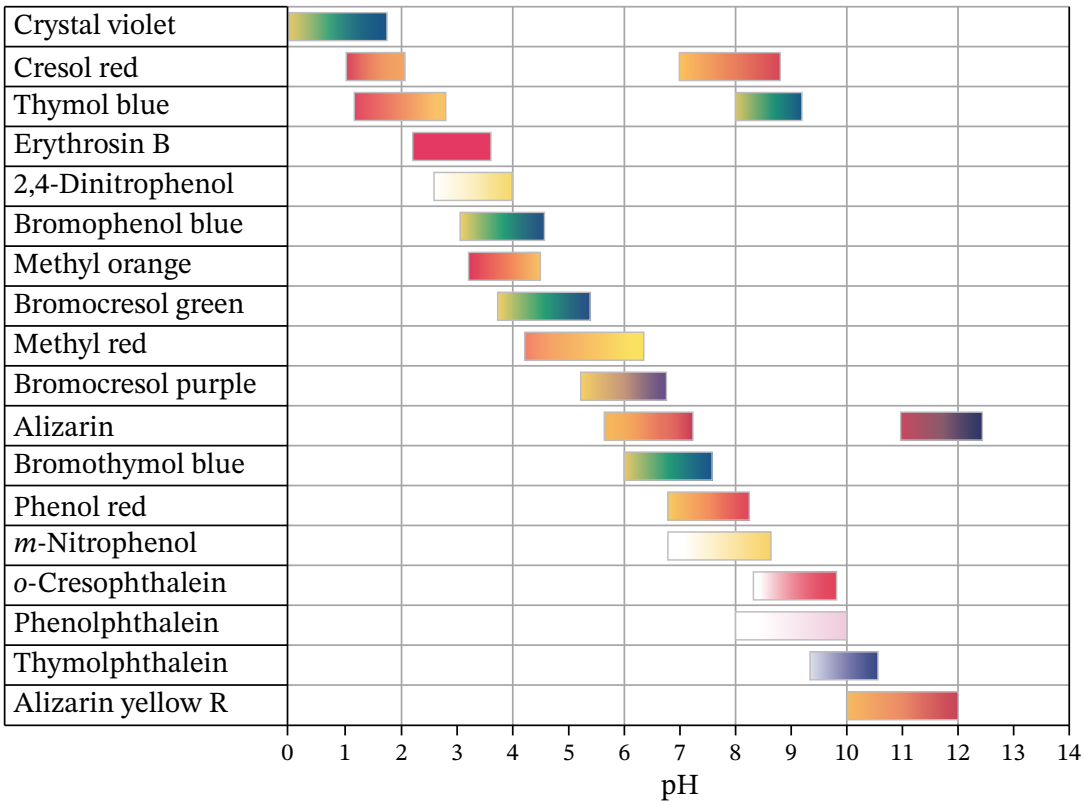
B 9

C 7

D 3

E 11

Q5: Shown in the figure are the colors of common pH indicators and the pH values where color changes are observed.



Which of the following indicators would be most suitable for a titration of a weak acid against a strong base?

A Bromophenol blue

B Thymolphthalein

C Alizarin

D Methyl orange

E Cresol red