**5** A driving instructor believes that the performance (pass or fail) of students when taking a driving test is associated with their age. The following table summarises the number of students who pass and who fail, and the ages in years of the students taking the test, over a period of three years.

| | age of student | | | |
|---|---|---|---|---|
| | under 20 | 20–40 | over 40 | total |
| pass | 34 | 41 | 6 | 81 |
| fail | 16 | 39 | 9 | 64 |
| total | 50 | 80 | 15 | 145 |

Test, at the 10% significance level, whether performance is independent of age of student. [7]

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....