# 5.1 Probability: 10-minute Pack

Calculator allowed · about 10 minutes

Name: _____ Date: ____ / ____ / _____

**Answer ALL questions. Show all your working.**

**1** A bag contains only red and green counters. The probability of picking a green counter is 0.45. There are 80 counters in total. Find the number of green counters.

**(2)**

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**2** In a class of 32 students, 20 study Spanish (S) and 15 study German (G). 6 students study neither language. Find the number of students who study both Spanish and German, then find the probability that a randomly chosen student studies both.

**(3)**

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**3** A fair 10-sided die is numbered 1 to 10 and rolled once. Write P(rolling a multiple of 5) as a fraction.

**(1)**


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**4** A survey of 40 people found that 24 preferred tea. Estimate the probability that a randomly chosen person from the survey prefers tea. Give your answer as a decimal.

**(1)**

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**5** A spinner can land on red, blue or green. The probability of red is 0.06 and the probability of blue is 0.08. Work out the probability of green.

**(2)**


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# Mark scheme · 5.1 Probability: 10-minute Pack

## Question 1

| | |
|---|---|
| correct method 0.45 x 80 | **M1** |
| 36 cao | **A1** |

Answer: **36**

## Question 2

| | |
|---|---|
| find the number studying at least one language, 32 - 6 = 26 | **M1** |
| use 20 + 15 - both = 26 to find both = 9 | **M1** |
| 9/32 cao | **A1** |

Answer: **9 students; 9/32**

## Question 3

| | |
|---|---|
| 1/5 cao oe (e.g. 2/10) | **B1** |

Answer: **1/5**

## Question 4

| | |
|---|---|
| 0.6 cao | **B1** |

Answer: **0.6**

## Question 5

| | |
|---|---|
| 1 - 0.06 - 0.08 or 1 - 0.14 | **M1** |
| 0.86 cao | **A1** |

Answer: **0.86**


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