BRITISH COLUMBIA WORKPLACE MATHEMATICS 11 (MWPM-11) · UNIT C · 25 QUESTIONS

Probability and Statistics — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **A fair coin is tossed once. The probability of heads is**

- **A** $\frac{1}{4}$
- **B** $\frac{1}{3}$
- **C** $\frac{1}{2}$
- **D** $\frac{2}{3}$

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2 A fair six sided die is rolled once. The probability of rolling a 5 is

- **A** $\frac{1}{6}$
- **B** $\frac{1}{5}$
- **C** $\frac{1}{3}$
- **D** $\frac{5}{6}$

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3 A bag has 3 red marbles and 7 blue marbles. The probability of drawing a red marble is

- **A** $\frac{3}{7}$
- **B** $\frac{3}{10}$
- **C** $\frac{7}{10}$
- **D** $\frac{7}{3}$

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4 **The probability of an event that is certain to happen is**

A 0

B $\frac{1}{2}$

C 1

D 2

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5 **The probability of an impossible event is**

A 0

B $\frac{1}{2}$

C 1

D -1

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6 **Two fair coins are tossed. The probability of two heads is**

- **A** $\frac{1}{4}$
- **B** $\frac{1}{2}$
- **C** $\frac{3}{4}$
- **D** 1

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7 **A spinner has 4 equal sections numbered 1 to 4. The probability of spinning an even number is**

- **A** $\frac{1}{4}$
- **B** $\frac{1}{2}$
- **C** $\frac{3}{4}$
- **D** 1

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8 **If the odds in favour of an event are 3 to 2, then out of 5 equally likely outcomes, the event happens in**

- **A** 2
- **B** 3
- **C** 4
- **D** 5

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9 **If the odds against an event are 4 to 1, the probability of the event is**

- **A** $\frac{1}{4}$
- **B** $\frac{1}{5}$
- **C** $\frac{4}{5}$
- **D** $\frac{4}{1}$

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10 A game pays 10 dollars with probability $\frac{1}{4}$ and 0 dollars otherwise. The expected winnings per game are

- A 1.50
- B 2.50
- C 4
- D 10

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11 A raffle ticket costs 2 dollars and has a 1 in 10 chance of winning 20 dollars. The expected net gain per ticket is

- A 0
- B 2
- C 18
- D 20

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12 **A shop expects to sell 100 items per day with probability 0.7 and 50 items with probability 0.3. Expected daily sales are**

- A 65
- B 75
- C 85
- D 100

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13 **The mean of 4, 6, 8 and 10 is**

- A 6
- B 7
- C 8
- D 9

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14 **The median of 3, 7, 9, 12 and 20 is**

A 3

B 7

C 9

D 12

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15 **The median of 2, 4, 6 and 8 is**

A 4

B 5

C 6

D 7

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16 **The mode of 5, 7, 7, 9 and 11 is**

A 5

B 7

C 9

D 11

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17 **The range of 12, 18, 25 and 31 is**

A 12

B 19

C 25

D 31

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18 **A workplace reports a mean wage of 30 dollars per hour, but most workers earn 20 dollars. The mean is pulled up most likely by**

- A a few very high wages
- B a few very low wages
- C rounding errors
- D part time workers

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19 **A survey about workplace safety is given only to managers. The main problem with the survey is**

- A the sample is biased
- B the sample is too large
- C managers answer too fast
- D safety is unimportant

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20 **In a survey, a larger random sample usually gives results that are**

A more reliable

B less reliable

C more biased

D unchanged

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21 **A factory checks every tenth product off the line. This sampling method is**

A random

B systematic

C voluntary

D convenience

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22 **The graph shows the number of workplace accidents per month. The month with the most accidents is month**

A 1

B 2

C 3

D 4

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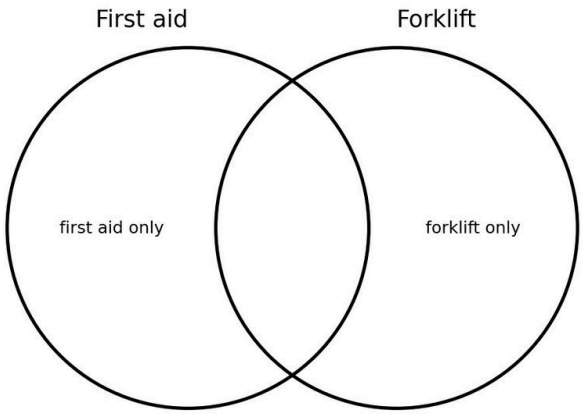
23 **The Venn diagram shows workers with first aid training and forklift training. Which workers are in the overlap?**



- **A** Workers with both kinds of training
- **B** Workers with first aid only
- **C** Workers with forklift training only
- **D** Workers with neither training

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24 **If yesterday was rainy, the probability of rain today is still based on todays weather conditions, not on the idea that rain is due to stop. This mistake is called the**

- **A** gamblers fallacy
- **B** sample size error
- **C** median error
- **D** range error

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25 **A fair die has been rolled five times with no six. The probability of a six on the next roll is still**

- **A** $\frac{1}{6}$
- **B** $\frac{1}{5}$
- **C** $\frac{5}{6}$
- **D** 1

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ANSWER KEY

1.	C	**10.**	B	**19.**	A
2.	A	**11.**	A	**20.**	A
3.	B	**12.**	C	**21.**	B
4.	C	**13.**	B	**22.**	C
5.	A	**14.**	C	**23.**	A
6.	A	**15.**	B	**24.**	A
7.	B	**16.**	B	**25.**	A
8.	B	**17.**	B		
9.	B	**18.**	A		

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