

Name _____

Date _____

Stage 7 End-of-unit test 13

21 questions · 41 marks · calculators are not allowed · allow about 45 minutes

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- 1** How likely is it that you will roll a 7 on an ordinary dice? [1]
- ☐ impossible
 - ☐ unlikely
 - ☐ even chance
 - ☐ certain
- 2** What is the largest a probability can be? [1]
- ☐ 1
 - ☐ 10
 - ☐ 100
 - ☐ There is no largest
- 3** A probability is $\frac{3}{8}$. What is that as a percentage? [2]
- _____
- 4** An event has probability 0.3. What is the probability it does not happen? [2]
- _____
- 5** A fair dice is rolled. What is the probability of an even number? [2]
- _____
- 6** A bag holds 12 counters, 5 of them blue. What is the probability of blue? [2]
- _____
- 7** A bag holds 12 counters, 5 of them blue. What is the probability of not blue? [2]
- _____
- 8** How do you calculate a probability with equally likely outcomes? [1]
- ☐ Guess
 - ☐ Favourable $\div$ total
 - ☐ Total $\div$ favourable
 - ☐ Add them
- 9** The probabilities of all possible outcomes add to ... [1]
- ☐ 0
 - ☐ $\frac{1}{2}$
 - ☐ 1
 - ☐ 100
- 10** A bag holds 4 red, 5 blue and 3 green counters. What is the probability of red or green? [3]
- _____

- 11** A bag has 20 counters and $P(\text{red}) = 1/4$. How many are red? [2]
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- 12** Two events are mutually exclusive when ... [2]
- ☐ they are equally likely
 - ☐ they cannot both happen
 - ☐ they always happen
 - ☐ they have equal probability
- 13** A fair spinner has 6 equal sectors. It is spun 60 times. How many times would you expect each number? [2]
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- 14** A dice is rolled 300 times. How many sixes would you expect? [2]
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- 15** In 60 trials an event happened 12 times. What is the experimental probability? [2]
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- 16** A fair coin gives 7 heads in 10 tosses. Is it unfair? [3]
- ☐ Yes definitely
 - ☐ Not necessarily — 10 trials is far too few
 - ☐ Yes, $7 > 5$
 - ☐ It can never be decided
- 17** What happens as the number of trials increases? [2]
- ☐ Experimental probability moves away from theoretical
 - ☐ Experimental probability usually moves closer to theoretical
 - ☐ Nothing changes
 - ☐ It becomes exact
- 18** To find the probability of a drawing pin landing point-up, you should ... [2]
- ☐ use favourable ÷ total
 - ☐ carry out many trials
 - ☐ guess 1/2
 - ☐ it cannot be found
- 19** A spinner gives a 3 on 24 of 80 spins. What is the experimental probability as a percentage? [3]
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- 20** A factory finds 3 faulty items in 150. What percentage is faulty? [2]
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- 21** A letter is chosen at random from MATHEMATICS. What is the probability it is an M? [2]
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END OF TEST