Geometric probability worksheet – Grade 10

Grade 10 · Mixed level · 20 questions · **Version X1714**

Name: _____ Date: _____ Score: ___ / 20

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1. A 19 m by 10 m lawn has a 5 m by 7 m flower bed. A ball lands at random. What is the probability it lands in the bed? Write it in lowest terms.

   Answer: _____

2. A point is chosen at random on this line. What is the probability it is on the thick part? Write it in lowest terms.



   Answer: _____

3. A 25 m by 10 m lawn has an 8 m by 5 m flower bed. A ball lands at random. What is the probability it lands in the bed? Write it in lowest terms.

   Answer: _____

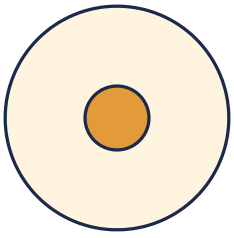
4. An 18 m by 9 m lawn has a 16 m by 2 m flower bed. A ball lands at random. What is the probability it lands in the bed? Write it in lowest terms.

   Answer: _____

5. A bus comes every 30 minutes. Omar arrives at a random time. What is the probability of waiting less than 22 minutes? Write it in lowest terms.

   Answer: _____

6. A dart hits this board at random. The inner circle has radius 2 cm and the board 7 cm. What is the probability of hitting the inner circle? Write it in lowest terms.



   Answer: _____

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7. A 22 m by 8 m lawn has an 11 m by 6 m flower bed. A ball lands at random. What is the probability it lands in the bed? Write it in lowest terms.

   Answer: _____

8. A spinner's red sector has an angle of 80°. What is the probability of red? Write it in lowest terms.

   Answer: _____

9. A 12-hour clock's second hand stops at random. What is the probability it stops between 12 and 3? Write it in lowest terms.

   Answer: _____

10. A circular dartboard has an inner circle of radius 4 and an outer radius of 6. What is the chance of hitting the outer ring? Write it in lowest terms.

    Answer: _____

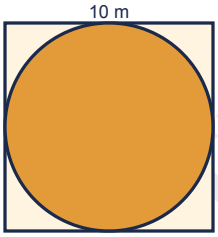
11. A 100 cm rope has an 80 cm red section. It is cut at a random point. What is the probability the cut is in the red part? Write it in lowest terms.

    Answer: _____

12. An 80 cm rope has a 60 cm red section. It is cut at a random point. What is the probability the cut is in the red part? Write it in lowest terms.

    Answer: _____

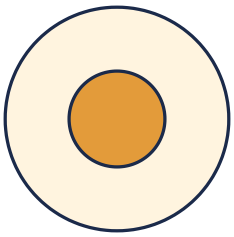
13. A circle fills a square of side 10 m. A raindrop lands at random in the square. What is the probability it is inside the circle, to two decimal places? (Use $\pi \approx 3.14$.)



    Answer: _____

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14. A dart lands at random on this board. What is the probability it misses the inner circle? Write it in lowest terms.



Answer: _____

15. A 25 cm stick is broken at a random point. What is the probability that the left piece is shorter than 23 cm? Write it in lowest terms.

Answer: _____

16. A target has rings of radius 2, 4 and 6 cm. What is the probability a random hit on the target is in the outer ring? Write it in lowest terms.

Answer: _____

17. A traffic light is green 32 s, yellow 5 s and red 37 s. In 200 trips, about how many arrive on red, to the nearest whole number?

Answer: _____

18. An 11 cm stick is broken at a random point. What is the probability that the left piece is shorter than 8 cm? Write it in lowest terms.

Answer: _____

19. A 1 m² square has a hole of 12 cm². What is the probability a random dart hits the hole, as a percent to two decimal places?

Answer: _____

20. A 14 cm stick is broken at a random point. What is the probability that the left piece is shorter than 6 cm? Write it in lowest terms.

Answer: _____

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Answer key · Version X1714

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1. **7/38**
2. **9/23**
3. **4/25**
4. **16/81**
5. **11/15**
6. **4/49**
7. **3/8**
8. **2/9**
9. **1/4**
10. **5/9**
11. **4/5**
12. **3/4**
13. **0.79**
14. **40/49**
15. **23/25**
16. **5/9**
17. **100**
18. **8/11**
19. **0.12%**
20. **3/7**

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