Experimental probability and predictions worksheet – Grade 7

Grade 7 · Mixed level · 20 questions · **Version X1150**

Name: _____ Date: _____ Score: ___ / 20

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1. Noah makes 18 of 25 free throws. What is the experimental probability of making one? Write it in lowest terms.

   Answer: _____

2. Nia makes 76 of 100 free throws. Predict how many of 500 would go in.

   Answer: _____

3. It rained on 6 of the last 40 days. Based on this, about how many of the next 120 days will it rain?

   Answer: _____

4. A machine produces 3 faulty items out of 60. What percent are faulty?

   Answer: _____

5. It rained on 33 of the last 50 days. Based on this, about how many of the next 250 days will it rain?

   Answer: _____

6. A machine produces 65 faulty items out of 100. What percent are faulty?

   Answer: _____

7. Lucas makes 30 of 80 free throws. What is the experimental probability of making one? Write it in lowest terms.

   Answer: _____

8. The theoretical probability is 1/2 but 100 flips gave 58 heads. What should you expect with 10,000 flips?

   A. Closer to 50% heads **B.** Exactly 58% heads **C.** All heads

   D. Fewer than 10% heads

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9. Work out the experimental probability of red if it came up 57 times in 80 spins, in lowest terms.

   Answer: _____

10. What is the experimental probability of red if it came up 71 times in 114 spins, in lowest terms?

    Answer: _____

11. Find the experimental probability of red if it came up 12 times in 56 spins, in lowest terms.

    Answer: _____

12. A spinner has 7 red parts of 12 equal parts. How many reds do you expect in 96 spins?

    Answer: _____

13. A spinner has 6 red parts of 8 equal parts. How many reds do you expect in 160 spins?

    Answer: _____

14. Work out the experimental probability of red if it came up 32 times in 136 spins, in lowest terms.

    Answer: _____

15. 80 of 100 surveyed students walk. There are 1000 students. How many do not walk?

    Answer: _____

16. A game costs 2 dollars and pays 10 dollars with probability 1/6. What is the expected payout per play, in dollars, to two decimal places?

    Answer: _____

17. A number cube is rolled 60 times and shows 6 twenty times. What might this suggest?

    A. The cube may be unfair **B.** The cube is certainly fair **C.** 6 can never appear again

    D. The next roll must be 6

18. A store sold 16 red shirts out of 40 shirts. It plans to order 200 shirts. How many should be red?

    Answer: _____

19. 4 of 50 surveyed students walk. There are 150 students. How many do not walk?

    Answer: _____

20. A store sold 75 red shirts out of 100 shirts. It plans to order 500 shirts. How many should be red?

    Answer: _____

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Answer key · Version X1150

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1. **18/25**
2. **380**
3. **18**
4. **5%**
5. **165**
6. **65%**
7. **3/8**
8. **A (Closer to 50% heads)**
9. **57/80**
10. **71/114**
11. **3/14**
12. **56**
13. **120**
14. **4/17**
15. **200**
16. **1.67**
17. **A (The cube may be unfair)**
18. **80**
19. **138**
20. **375**

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