

2023 Mission Math Utah Spring Competition (K-2)

You will have 40 minutes to complete as much of this test as you can. There are 30 free response questions total, and questions are arranged roughly from easiest to most difficult. Units are not needed. Write answers on the given line below each question. Calculators are not allowed. Do not begin the test until told to do so. Good Luck!

Full Name: _____

Grade: _____

Age: _____

1. What is $2 + 4 + 6$?

2. Cartman eats 3 hamburgers for breakfast, 5 hamburgers for lunch, and 8 hamburgers for dinner. How many hamburgers does Cartman eat?

3. Butters has 3 quarters and 4 dimes while Randy has 4 quarters and 3 dimes. How much more money does Randy have than Butters? (give your answer in cents)

4. Wendy's test is a 100 question exam, and every answer is either true or false. If Wendy answers true on all 100 questions, and gets 31 correct, how many questions had false as their answer?

5. Evaluate $7 - 6 + 5 - 4 + 3 - 2 + 1$

6. Mingchuan and David are measuring two different objects. Mingchuan's object measures 3 inches, while David's measures 8 inches. What is the difference between the lengths of David and Mingchuan

7. Evaluate 4×5

8. Heidi has a 4 page storybook. If she has read 75% of the book, how many page(s) does she have left?

9. Anna, Bill, Carol, and Dan are having a bake sale that spans both Monday and Tuesday. Anna sells 3 bags of cookies on Monday and 1 bag on Tuesday. Bill sells 2 bags on Monday and 7 on Tuesday. Carol sells 3 on Tuesday and 3 on Monday. Finally, Dan sells 10 on Tuesday and 0 on Monday. How many bags of cookies did the four of them sell together during their bake sale?

10. Simplify $\frac{36}{54}$.

11. The countdown round has 2 divisions. Each division has 45 questions. How many total questions are in the countdown round?

12. A singer releases 2 songs every month. How many songs will be released in 2023?

13. Compute the area of a square with side length 4.

14. Eric and Liane are playing a card game. Liane randomly draws a card from a deck of cards numbered 1-10. Eric tells her that the card's value is even, but Liane does not know if Eric is telling the truth. What is the probability that Liane guesses the parity of the card's value correctly? (Parity is whether the number is even or odd)

15. What is $3 \times 3 + \frac{3}{3} - 3$

16. Chef has 7 candy canes. 4 of them are red, and 3 of them are green. If Chef chooses 2 candy canes at random, what is the probability that both candy canes he chose are green?

17. How many numbers n have the property that $n \times n < 0$? ($<$ means less than)

18. Find 2.4×0.3 . Express your answer as a decimal to the nearest hundredth

19. Cantaloupes, watermelons, and honeydews are all types of melon. Eric has 11 cantaloupes. Kenny has 2 times as many cantaloupes as Eric has. Kyle has 3 times as many watermelons as Kenny has cantaloupes. Finally, Stan has 5 times as many honeydews as Kyle has watermelons. How many melons does the group have total?

20. McCormick has an unlimited supply of candy, but he only gives them out in denominations of 5. Meanwhile, Marsh also has an unlimited supply of candy, but he only gives out one candy at a time. If McCormick gives candy out once every 7 days, and Marsh gives candy out once every third day, and they both give out candy for the first time on a Monday, what is the next both of them will give out candy at the same time?

21. $3x + 2 = 20$ for some integer x . What is the value of $6x + 4$.

22. Simplify $9(2 - 6) - 5 - 0 - 3(17 - 26)$.

23. Jimmy is a slow walker. If he walks at a pace of 10 meters every minute, how many meters does he travel in 5 minutes?

24. If 333 is divisible by three, what is the remainder when 334 is divided by 3?

25. Mr. Garrison has 200 packages of marshmallows, and each package contains 48 marshmallows. At his school, there are 25 classes, and each class contains 12 students. If he shares his marshmallows so that each student at his school gets the same number of marshmallows, how many marshmallows will each student get?

26. Compute $(-64) \div (-32)$.

27. What is the probability that I roll an even number on a standard 6-sided die?

28. In how many ways can I choose a starting five for a basketball team consisting of different positions (Point Guard, Shooting Guard, Small Forward, Power Forward, and Center) from a team of 7 people?

29. Compute $17 \times 16 + 17 \times 4 + 13 \times 16 + 13 \times 4$.

30. 100 people were surveyed and asked the question: "Which color is your favorite: blue or red?" Of them, 60 responded that blue is their favorite color and 27 responded that both were their favorites. Another 17 responded that neither red nor blue was their favorite color. How many of those 100 people said red was their favorite color?
