GREY SKILL DRILL 6

Be sure to show all work. No calculators allowed. Leave answers in terms of \( \pi \) where applicable.

1) Simplify: \( 6 + 4 \cdot 4 + 6 \)
2) Simplify: \( 0.5 + \frac{1}{20} \)
3) Write 35,000 in scientific notation.
4) If \( x = 17 - 3^2 \), what is the value of \( \frac{1}{2} x \)?
5) If I go 50 mph for \( 4 \frac{1}{2} \) hours, how far will I have gone?
6) What is the largest prime factor of 360?
7) I have 5 nickels, 8 quarters and a fifty-cent piece. How much money do I have?
8) Simplify: \( 6n + 7n - 15n \)
9) What is the area of a semicircle with a radius of 5mm?
10) What is the product of \( 3\frac{1}{3} \) and \( 4\frac{1}{4} \)?
11) One card is drawn at random from a deck of 52 cards. What is the probability that the card is either a queen or the king of hearts?
12) What is the total surface area of a cube with an edge 6 cm?
13) The perimeter of a square is 64 inches. Find the number of square inches in its area.
14) Simplify: \( (−6)−(−5)+11 \)
15) Solve for \( N \): \( 3N - 8 = 64 \)
16) What is the product of the square roots of 36 and 64?
17) If \( x + 5 = 6 \), what does \( x - 5 \) equal?
18) Three rabbits cost $66. How much would eight rabbits cost?
19) What is the probability of getting either a 5 or a 6 on a roll of one die?
20) What is the average of the first five even numbers?

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
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19. _____
20. _____
1) Simplify: \[ 6 \times 5 + 4 / 2 + 3 \]

2) What is the volume of a rectangular prism with \( l = 5 \) dm, \( h = 4 \) dm, and \( w = 7 \) dm?

3) What is the cube root of 64?

4) What perfect square is 9 less than another perfect square?

5) What is the total surface area of a sphere with a radius of 8 inches?

6) If \( A = 5 \) and \( B = 0 \) and \( C = 10 \) what is \( AC / B \)?

7) If a right triangle has sides \( a = 3 \) mm and \( b = 4 \) mm, find \( c \), the hypotenuse.

8) Name the property defined by \( A(B + C) = AB + AC \).

9) Write .0000098 in scientific notation.

10) What is the probability of getting a red king in one draw out of a deck of 52 cards?

11) What is the product of 2.3 and \( \frac{1}{2} \)?

12) What is the reciprocal of the product of \( 2 \frac{1}{3} \) and \( 3 \frac{1}{2} \)?

13) What percent of 40 is 60?

14) Solve for \( N \): \[ 3N - 99 = 999 \]

15) What is the mean of the following data: 55, 44, 33, 22, 11

16) Change \( 16 \frac{2}{3} \% \) into a fraction.

17) Simplify: \( 4! \)

18) Simplify: \( 5! - 4! \)

19) Simplify: \( 9^0 + 8^1 - 7^2 \)

20) What is the product of the GCF and the LCM of 12 and 15?
GREY SKILL DRILL 8

1) What is the next number? 1, 8, 27, 64, ?

2) Which is greater: 23%, $\frac{14}{50}$, or .099?

3) What is the measure of the complement of a 70° angle?

4) What is the probability of getting a black or a red card in a single draw in a deck of cards?

5) Solve for $N$: $8 - 3N = 4N$

6) Solve this inequality: $5N - 1 > 4$

7) How many ounces are in a pound?

8) How many pounds are in a ton?

9) 30% of what number is 12?

10) What is the divisibility rule for 4?

11) What is the divisibility rule for 8?

12) Solve for $N$: $N + \frac{2}{3} = \frac{24}{6}$

13) Simplify: $110 - .9 \times .2$

14) If the diagonal of a square is 5 times the square root of 2, what is the length of a side?

15) What is the volume of a circular cone with a radius of 3 mm and a height of 9 mm?

16) Find: 500! divided by 499!

17) Write .0000000000798 in scientific notation.

18) What is the combined area of a square with a side length of 12 cm and a triangle with a base of 6 cm and a height of 12 cm?

19) What is the sum of the remaining 2 angles of a right triangle?

20) How many centimeters are there in 69 meters?
1) Change \( \frac{1}{250} \) into a decimal.
2) Change 35% into a fraction.
3) Change .44 into a fraction.
4) Change \( \frac{1}{36} \) into a percent.
5) 30% of what number is 200.
6) Find 3\( \frac{2}{5} \) multiplied by 2\( \frac{4}{5} \).
7) What is the product of the first two odd perfect squares?
8) What is the reciprocal of 3\( \frac{4}{5} \)?
9) What is the square root of 44 rounded to the nearest tenth?
10) What is the prime factorization of 200?
11) The measure of one acute angle of a right triangle is 43°. What is the measure of the other acute angle?
12) Evaluate \( \frac{1}{a} + 4a \) if \( a = -2 \).
13) What is the total surface area of a box with a height of 5 cm, a length of 6 cm and a width of 8 cm?
14) What is the mean of the mode and the median of the following data:
   3, 4, 4, 4, 5, 7, 8?
15) If the probability it will rain is \( \frac{1}{3} \) and the probability you get homework is \( \frac{6}{5} \), what is the probability of it raining on a night you have homework?
16) A train travels 65 mph for 6\( \frac{1}{3} \) hours. How far will the train travel?
17) 55 cm = _____ km
18) What is \( \frac{1}{2} + \frac{1}{3} + \frac{1}{4} \)?
19) Find the next number in the following sequence: 1.1, 2.3, 3.5, 4.7, ?
20) Find the next number in the following sequence: 9, 7, 4, 0, -5, ?

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
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GREY SKILL DRILL 10

1) What is the product of the reciprocals of \( \frac{1}{3} \) and \( \frac{15}{21} \)?

2) Simplify: \( 8 + 3 \times 4 - 2 + (9 - 3)/2 + 3 \)

3) What is \( 66 \frac{2}{3} \% \) as a fraction?

4) What is 3 less than the product of 16 and 17?

5) Solve for \( N \): \( 3N - 16 = 21 \)

6) What is the quotient of \( 3 \frac{2}{3} \) and \( 4 \frac{1}{3} \)?

7) What is the total surface area of a sphere with a radius of 5 cm?

8) \( 55.3 \text{ km} = \ldots \text{ m} \)

9) What percent of 30 is 45?

10) Simplify: \( .3 \times .4 + .5 \times .6 \)

11) Simplify: \( \frac{3}{4} + \frac{3}{4} + \frac{4}{3} \)

12) If I went 30 miles in 20 minutes how fast was I going?

13) What is the volume of a circular cone with a radius of 5 cm and a height of 10 cm?

14) If a bag contains 5 red marbles and 15 black marbles, what are the odds in favor of drawing a red marble?

15) What is the probability of drawing a red marble in problem 14?

16) What is the probability of drawing two red marbles without replacement in problem 14?

17) If the probability of winning a contest is 1 out of 30 and you competed 1200 times, about how many times would you expect to win?

18) 20 yards = \ldots \text{ inches}

19) Solve for \( N \): \( 3N - 5 > -6 \)

20) Simplify: \( 5^0 + 5^1 + 5^2 - 5^1 \)

Answers

1. \ldots

2. \ldots

3. \ldots

4. \ldots

5. \ldots

6. \ldots

7. \ldots

8. \ldots

9. \ldots

10. \ldots

11. \ldots

12. \ldots

13. \ldots

14. \ldots

15. \ldots

16. \ldots

17. \ldots

18. \ldots

19. \ldots

20. \ldots