

Name:

Show all work. No calculators.

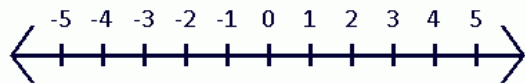
Time it took to take test:

1. Express $\frac{3}{8} + \frac{5}{6}$ as a fraction **reduced to lowest terms**.

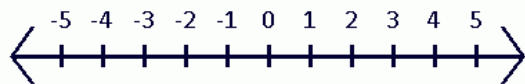
2. Find the area of a circle of radius 2.
(Area = πr^2) **Express your answer in terms of π .**

3. Graph on a number line:

$$x \geq 0$$



$$x \leq -3$$



4. Write 0.000387 in scientific notation.

5. Express mathematically “five added to twice a number.” Use N to represent the unknown number.

6. The ratio of boys to girls in the class was 4 to 6. If there were 8 boys in the class, how many girls were in the class?

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7. The original price of the pants was \$40. During the Presidents' Day sale, the price of the pants was reduced by 20%. What was the **sale price** of the pants?

8. Compute:

$$3^2 - 2^3 + \sqrt{16}$$

9. Complete the table by converting the fraction to a decimal and a percent. An example is shown:

Fraction	Decimal	Percent
$\frac{1}{2}$	0.50	50%
$\frac{3}{8}$		
$\frac{2}{5}$		
$\frac{1}{3}$		

10. The number of red frogs exceeded the number of blue frogs by 80. The number of green frogs was 20 less than the blue frogs. If there were 120 blue frogs, what was the sum of the reds, blues, and greens?

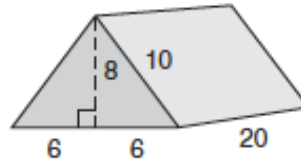
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11. The first flock contained 5,283 birds. The second flock had 5 times as many birds. The third flock had twice as many as the second flock. How many birds were there in all?

12. **(a)** Find the surface area and **(b)** the volume of this right solid. Dimensions are in centimeters.

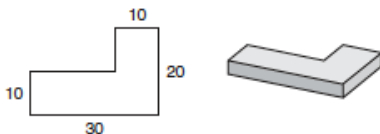


13. Find x.

$$2\frac{1}{4} = \frac{1\frac{5}{6}}{1\frac{1}{2}} \times$$

14. The number 200 is increased by 130 percent. What is the new number?

15. What is the volume in cubic meters of the right solid whose base is the figure shown on the left and whose sides are 200 cm tall? Dimensions are in meters. All angles are right angles.



16. Compute.

$$3\frac{1}{2} \times 6\frac{1}{3} \div 2\frac{1}{3} \times 1\frac{1}{3}$$

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17. Solve for x.

$$-\frac{1}{3}x + \frac{2}{4} = 1\frac{5}{6}$$

18. Compute.

$$3^2 + 3[2^3 (\sqrt{49 - 2^2})(3^2 - 2^3) - 2^2]$$

19.

Evaluate the following if $p = 16$, $m = 4$, and $x = 3$.

$$\sqrt[m]{p} + \frac{x}{\sqrt{p}}$$

20. Solve for x.

$$3 - 5x + 6 = 14x - 32 + 10(2 - x)$$

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