Name: **Show all work. No calculators.**   Time:
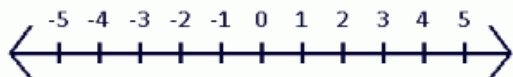
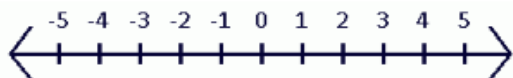|	
1. Express 3/8 + 5/6 as a fraction reduced to lowest terms.	2. Find the area of a circle of radius 2. (Area = πr^2) Express your answer in terms of π.
3. Graph on a number line: $x \geq 0$ -5 -4 -3 -2 -1 0 1 2 3 4 5 $x \leq -3$ -5 -4 -3 -2 -1 0 1 2 3 4 5	4. Multiply. Express the product as a fraction reduced to its lowest terms. $$\frac{3}{8} \times \frac{4}{5}$$
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?

|	
7. The original price of the pants was $40.00; 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
$\dfrac{1}{2}$	0.50	50%
$\dfrac{2}{5}$		
$\dfrac{3}{8}$		

10. Use the information in the graph below to calculate the average monthly new car sales for the five months shown on the graph.
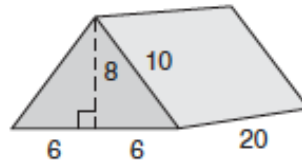

New Car Sales
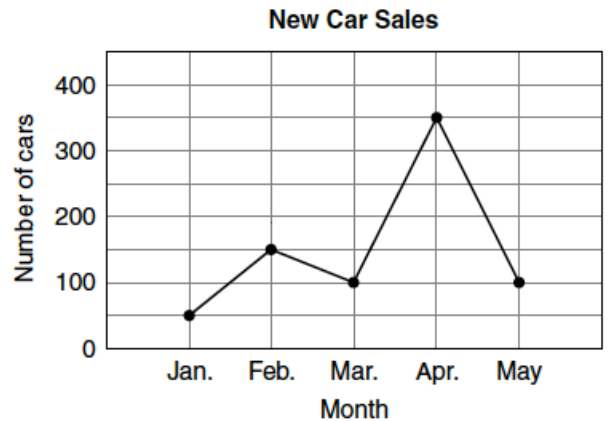
Name: **Show all work. No calculators.** Page 3

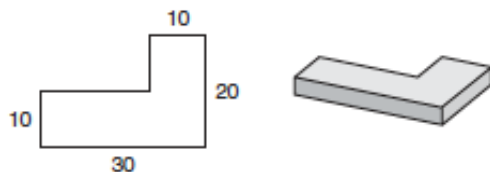| 11. The number of red frogs exceeded the number of blue frogs by 80. The number of green frogs was 20 less than the blue frogs. If there were 120 blue frogs, what was the sum of the reds, blues, and greens?	12. Find the **surface area** of this right solid. Dimensions are in centimeters.

12 figure labels: 8, 10, 6, 6, 20

13. Solve for x. $$-\frac{1}{3}x+\frac{2}{4}=1\frac{5}{6}$$	14. If 200 is increased by 130 percent, what is the resulting 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 2 m tall? Dimensions are in meters. All angles are right angles.	16. Write 0.000387 in scientific notation.

15 figure labels: 10, 20, 10, 30

17. Simplify.	18. Simplify.
$3\frac{1}{2} \times 6\frac{1}{3} \div 2\frac{1}{3} \times 1\frac{1}{3}$	$3^2 + 3[2^3 (\sqrt{49} - 2^2)(3^2 - 2^3) - 2^2]$
19. Evaluate the following if p = 16, m = 4, and x = 3. $\sqrt[m]{p} + \dfrac{x}{\sqrt{p}}$	20. Solve for x. $\dfrac{2\frac{1}{4}}{1\frac{1}{2}} = \dfrac{1\frac{5}{6}}{x}$

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The End