

## Grid In Questions

**Directions:**

Grid-in questions (student-produced response questions) are problems with no answer choices. You have to solve the problem then enter the answer in a grid.

1. If 20% of a number is 8, what is 25% of the number?
2. If  $3x + 3x - 3x = 12$ , what is the value of  $3x + 1$ ?
3. The toll on the Islands Bridge is \$1.00 for car and driver and \$.75 for each additional passenger. How many people were riding in a car for which the toll was \$3.25?
4. If  $y^3 = 2y^2$  and  $y \neq 0$  then  $y$  must be equal to
5. If  $x$  and  $y$  are negative integers and  $x - y = 1$ , what is the least possible value for  $xy$ ?
6. An oil tank has a capacity of 45 gallons. At the beginning of October it is 80% full. At the end of October it is  $\frac{1}{3}$  full. How many gallons of oil were used in October?
7. If  $ab = 10$  and  $a^2 + b^2 = 30$ , what is the value of  $(a + b)^2$ ?
8. At 3:30 P.M. the angle between the hands of a clock is
9. A clerk's weekly salary is \$320 after a 25% raise. What was his weekly salary before the raise?
10. Which of the following is equal to  $\frac{1}{2}$  of  $\frac{3}{5}$ ?
11. The length of an arc of a circle is equal to  $\frac{1}{5}$  of the circumference of the circle. If the length of the arc is  $2\pi$ , the radius of the circle is
12. If  $a = x^2$  and  $x = \sqrt{8}$ , what is the value of  $a$ ?
13. Mr. Prince takes his wife and two children to the circus. If the price of a child's ticket is  $\frac{1}{2}$  the price of an adult ticket and Mr. Prince pays a total of \$12.60, find the price of a child's ticket.

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14. The diameter of a circle is increased by 50%. The area is increased by
15. Of the students at South High,  $\frac{1}{3}$  are seniors. Of the seniors,  $\frac{3}{4}$  will go to college next year. What percent of the students at South High will go to college next year?
16. If  $a = 4$ , what is the value of  $\sqrt{a^2 + 9}$  ?
17. When a certain number is divided by 2, there is no remainder. If there is a remainder when the number is divided by 4, what must the remainder be?
18. If there are 30 students at a meeting of the Forum Club, and 20 are wearing white, 17 are wearing black and 14 are wearing both black and white, how many are wearing neither black nor white?
19. A drawer contains 4 red socks and 4 blue socks. Find the least number of socks that must be drawn from the drawer to be assured of having a pair of red socks.
20. If  $\frac{2}{5}x = \frac{5}{2}x = y$ , what is the value of  $\frac{y}{x}$  ?



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### ANSWERS

<b>1.</b>	10	<b>2.</b>	13	<b>3.</b>	4	<b>4.</b>	2	<b>5.</b>	2
<b>6.</b>	21	<b>7.</b>	50	<b>8.</b>	75°	<b>9.</b>	\$256	<b>10.</b>	30%
<b>11.</b>	5	<b>12.</b>	8	<b>13.</b>	\$2.10	<b>14.</b>	125%	<b>15.</b>	25
<b>16.</b>	5	<b>17.</b>	2	<b>18.</b>	7	<b>19.</b>	6	<b>20.</b>	$\frac{4}{25}$