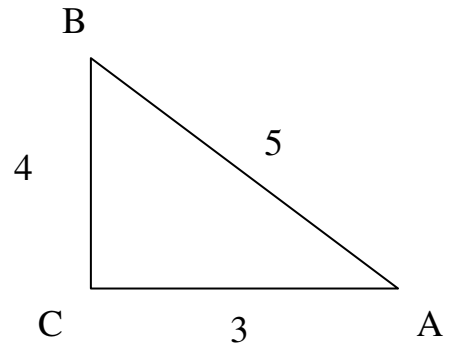


ALGEBRA EQUIVALENCY FOR ELECTRICIAN PRE TEST

Use the graphic to the right to complete questions 1-3.

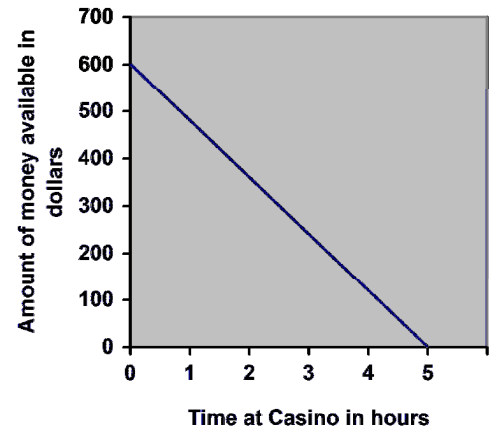


- ___ 1. Sin B =
a. $\frac{3}{5}$ b. $\frac{4}{5}$ c. $\frac{5}{3}$ d. $\frac{5}{4}$
- ___ 2. Cos B =
a. $\frac{3}{5}$ b. $\frac{4}{5}$ c. $\frac{5}{3}$ d. $\frac{5}{4}$
- ___ 3. The cos of which angle is $\frac{3}{5}$
a. A b. B c. C
- ___ 4. In a right triangle if one leg is 5 and the other leg is 12 what is the length of the hypotenuse?
a. 5 b. 6 c. 13 d. 12
- ___ 5. In a right triangle if the length of the hypotenuse is 5 and the length of one leg is 4, what is the length of the other leg?
a. 5 b. 7 c. 3 d. 11
- ___ 6. $\frac{1}{8} + \frac{1}{5} =$
a. $\frac{1}{13}$ b. $\frac{1}{40}$ c. $\frac{2}{13}$ d. $\frac{13}{40}$
- ___ 7. $\frac{1}{5} - \frac{1}{8} =$
a. $\frac{3}{40}$ b. 0 c. $\frac{0}{40}$ d. $-\frac{1}{3}$
- ___ 8. $\frac{4}{9} \times \frac{2}{5} =$
a. $\frac{6}{12}$ b. $\frac{4}{9}$ c. $\frac{2}{4}$ d. $\frac{8}{45}$
- ___ 9. $\frac{4}{7} \div \frac{3}{5} =$
a. $\frac{12}{7}$ b. $\frac{12}{35}$ c. $\frac{6}{20}$ d. $\frac{20}{21}$
- ___ 10. $\sqrt{36}$
a. 2 b. 18 c. 6 d. 9

11. $\sqrt{39 + 42}$
 a. 81 b. 9 c. 40 d. 41

Use the chart to the right to complete questions 12-14.

Money Dave Spent in Vegas



12. How long did it take Dave to lose all his money?
 a. 0 hrs b. 3 hrs c. 5 hrs
13. How much money did he have after 4 hours?
 a. \$600 b. \$125 c. \$0
14. How much money did he spend every hour?
 a. \$120 b. \$300 c. \$500
15. $5 + 7 \times 3 - 12 =$
 a. 24 b. 14 c. 40 d. -384
16. $8 - (5 - 3) \times 4 =$
 a. 0 b. 24 c. 60 d. -2
17. $2 + (18-12)/3 \times 5 =$
 a. .8 b. 20 c. 40 d. 12
18. $3 \times 10^5 =$
 a. 305 b. .000003 c. .00003 d. 300000
19. $3 \times 10^{-5} =$
 a. 305 b. .000003 c. .00003 d. 300000
20. $.00082 =$
 a. 8.2×10^4 b. 8.2×10^{-4} c. 82×10^3 d. 82×10^{-3}
21. $7265.1 =$
 a. 7.2651×10^{-4} b. 7.2651×10^3 c. $.72651 \times 10^2$ d. $.72651 \times 10^3$
22. $5^3 =$
 a. 15 b. 53 c. 8 d. 125

23. $a^5 \times a^3 =$
a. a^{53} b. a^8 c. a^{15} d. a^2
24. The decimal equivalent of the fraction $\frac{2}{5}$ is
a. .20 b. .25 c. .40 d. 2.5
25. The decimal equivalent of 45% is
a. .45 b. .045 c. 45 d. 4.5
26. The formula for Circumference is $C = \pi d$ where $\pi = 3.14$ and d is the diameter. What is the circumference of a circle with a diameter of 7 inches.
a. 291.8 b. 18.14 c. 9.14 d. 21.98
27. If $3x + 4 = 16$. Solve for x .
a. 1 b. 2 c. 6 d. 4
28. If $xy=30$. Solve for x .
a. $30x$ b. $30y$ c. $30/y$ d. 30
29. $\frac{1}{3} + \frac{2}{10} =$
a. $\frac{3}{13}$ b. $\frac{16}{30}$ c. $\frac{2}{30}$ d. 3
30. $\frac{10}{15} - \frac{6}{9} =$
a. $\frac{1}{2}$ b. $\frac{2}{3}$ c. 0 d. $\frac{1}{34}$
31. If $x = 10$, then what does $3x - 6 =$
a. 304 b. 24 c. 18 d. -40
32. $4^2 =$
a. 8 b. 16 c. 6 d. 42
33. Simplify $2x + 5y + 6x + 4y =$
a. 18 b. $7xy + 11xy$ c. $8x+9y$ d. can not do
34. What is the square root of 25?
a. 12 b. 2 c. 50 d. 5

- ___ 35. Write .074 in scientific notation.
a. 7.4×10^{-2} b. 7.4×10^2 c. 74×10^{-2} d. 74×10^3
- ___ 36. What is $8 \times 3X$?
a. $3X$ b. $11X$ c. $5X$ d. $24X$
- ___ 37. What is .60 as a fraction reduced to lowest terms?
a. $3/5$ b. $4/6$ c. $60/1000$ d. $8/10$
- ___ 38. Say $X = y/w$, if $x = 6$ and $y = 12$ what is the value of w ?
a. 2 b. 72 c. 6 d. 3
- ___ 39. Say $X = y/w$, if $y = 20$ and $w = 4$ what is the value of x ?
a. 2 b. 80 c. 16 d. 5
- ___ 40. Say $X = y/w$, if $x = 3$ and $w = 18$ what is the value of y ?
a. 2 b. 6 c. 54 d. 15