



Basic Algebra

Extra Word Problems

- Sarah sells necklaces for \$50 each. She sells 40 necklaces in a month at this price, if she applied a 10% discount to the price of her necklaces she would sell an additional 10 necklaces in a month. How much additional money would Sarah make in sales if she sold her necklaces with the 10% discount for one month?
 - \$2,000
 - \$2,500
 - \$200
 - \$250**
- A shirt costs \$12 after a 15% discount what was the original price of the shirt?
 - \$12.15
 - \$15.12
 - \$14.12**
 - \$10.80
- A farmer has 100 meters of fence. If he uses this to fence a square field what will be the length of each side?
 - 25**
 - 50
 - 100
 - 10
- The area of a large rectangle is 200 ft.². How many 3' x 5' rectangles can fit inside of the large rectangle?
 - 10
 - 12
 - 13**
 - 15
- A chemistry student has one half liter of a 75% acid solution. She needs a 50% acid solution for an experiment. How much pure water should she add?
 - 0.25 L**
 - 0.5 L
 - 1 L
 - 0.375 L
- Sarah is having a birthday party she wants to invite 18 friends. Each invitation costs \$0.50 and each stamp costs \$0.45. If she plans to mail all of the invitations, how much change should she get back if she pays with a \$20 bill?
 - \$17.90
 - \$2.00
 - \$2.90**
 - \$9.20





Basic Algebra

Extra Word Problems

7. Joy earns a 5% commission on each house she sells. How much money does she earn when she sells two houses for \$69,000 each, and a third house for \$75,000?
- \$3,450
 - \$6,900
 - \$3,750
 - \$10,650**
8. Dean is counting his money. He has five more quarters than nickels and four less nickels than dimes. He has a total of \$2.85. How many coins does he have?
- 10
 - 18**
 - 9
 - 13
9. A painter is mixing orange paint. He mixes one part of red paint with three parts of yellow paint. How many **gallons** of yellow paint should he buy to mix with 3 **quarts** of red paint?
- 1 1/2
 - 2
 - 3**
 - 4
10. If 1 inch equals 2.54 cm, approximately how many meters are in 24 feet?
- 2.5
 - 9.4
 - 7.3**
 - 30.5
11. The length of a rectangle is 10 more than the width. The perimeter is 80 feet. What is the area of the rectangle?
- 90
 - 375**
 - 900
 - 800
12. One side of a rectangle is 15 feet. Its perimeter is 54 feet. Its area is 180 ft.². What is the length of the second side?
- 12**
 - 15
 - 30
 - 69





Basic Algebra

Extra Word Problems

13. Two brothers are dividing up the family farm to make work easier. Frank and George will divide 160 acres in a ratio of 3 to 5, respectively. How many acres will George get?
- 96
 - 60
 - 100**
 - 64
14. According to Newton's law of motion: force equals mass times acceleration. If a 3 kg mass exerts a force of 45 N, what force will a 12 kg mass exert at the same acceleration?
- 45
 - 135
 - 36
 - 180**
15. Barbara lives 16 miles from the beach and her friend Joseph lives 20 miles from the beach. If Barbara and Joseph leave their homes at the exact same time and Barbara drive 60 mph, how fast will Joseph need to drive, so as to arrive at the beach at the exact same time as Barbara?
- 75**
 - 60
 - 20
 - 50
16. Rose, Eileen and Sasha order a pizza. It is divided into 10 slices. Eileen eats one slice. Roseann eats twice as many slices as Sasha. How many pieces of pizza does Sasha eat, if there are three slices of pizza remaining?
- 2**
 - 3
 - 4
 - 7
17. A helicopter flies, against the wind, from city A to city B in five hours. The same helicopter returns from city B to city A, in the same direction as the wind, (which is still blowing at the same speed) in four hours. Find the ratio of the speed of the helicopter to the speed of the wind?
- 4
 - 5
 - 9**
 - 18





Basic Algebra

Extra Word Problems

18. Two cars leave the city at the same time one heads east at 35 mph and the other heads west at 67 mph. How far apart are they after three hours?
- 102
 - 306**
 - 105
 - 201
19. You want to build a house that is 30' x 40', with walls 9' high. How many square **yards** of plywood will you need to cover the walls?
- 140**
 - 70
 - 9
 - 1260
20. To ensure that the adjacent walls for the 30' x 40' house are at right angles to each other, you decide to measure the length of the floor's diagonals, to make sure that they are equal. How long are these diagonals?
- 30
 - 40
 - 50**
 - 70
21. You want to build a simple pitched roof across the 30 foot side of the house. You want the roof to have a 1 to 3 pitch - that is it rises 1 foot for every three horizontal feet. How high will the roof be above the top of the walls at the highest point?
- 1
 - 5**
 - 3
 - 7
22. You invite eight people to dinner (nine total people). Chicken costs \$11 each. Steak cost \$16 each. If the total bill is \$126.14, how many people had chicken?
- 9
 - 4
 - 6
 - 5**





Basic Algebra

Extra Word Problems

23. Mary normally takes the 5 o'clock train, which gets into the station at 6 o'clock. Her husband always picks her up exactly at 6 o'clock. Today Mary leaves work at 4 o'clock, getting into the station at 5 o'clock. Since her husband won't be there to pick her up, for a while, she decides to walk, towards home, and meet him part way. Her husband leaves the house at the normal time. When he meets her, he picks her up (zero time), turns around (zero time), and arrives back home 20 minutes earlier than normal. How long did Mary walk before her husband picked her up?
- 60 min
 - 50 min**
 - 30 min
 - 45 min
24. Frank wants to become an actor in Hollywood but he needs money to travel from Green Bay WI. He can fly for \$225 or he can drive his car. His car has a 17-gallon gas tank and his car gets 30 miles per gallon, It is 2000 miles from Green Bay to Hollywood. The price of gasoline is \$3.00/gallon. Would it be cheaper for him to fly or drive?
- Drive**
 - Fly
25. John was at a store and saw that his favorite video game was on sale for \$29.99. He had \$14. in his pocket and another \$5.70 at home. He works, mowing lawns, for \$5.00/hour. Approximately, how many hours will he have to work before he can buy the video game?
- 1.9
 - 3
 - 2.1**
 - 2
26. School is starting and James has \$300 to spend on clothing. He buys a pair of shoes for \$62.50, three shirts for \$17.25 each and five pairs of jeans at \$27.75 each. How much change will James get back?
- \$37
 - \$67.50
 - \$57.75
 - \$47.**
27. The perimeter of a rectangle is 80 ft. Its area is 111 sq ft. What is its length?
- 40
 - 37**
 - 31
 - 34





Basic Algebra

Extra Word Problems

SAFETY DISCLAIMER:

M-SAMC educational resources are in no way meant to be a substitute for occupational safety and health standards. No guarantee is made to resource thoroughness, statutory or regulatory compliance, and related media may depict situations that are not in compliance with OSHA and other safety requirements. It is the responsibility of educators/employers and their students/employees, or anybody using our resources, to comply fully with all pertinent OSHA, and any other, rules and regulations in any jurisdiction in which they learn/work. M-SAMC will not be liable for any damages or other claims and demands arising out of the use of these educational resources. By using these resources, the user releases the Multi-State Advanced Manufacturing Consortium and participating educational institutions and their respective Boards, individual trustees, employees, contractors, and sub-contractors from any liability for injuries resulting from the use of the educational resources.

DOL DISCLAIMER:

This product was funded by a grant awarded by the U.S. Department of Labor's Employment and Training Administration. The product was created by the grantee and does not necessarily reflect the official position of the U.S. Department of Labor. The Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership.

RELEVANCY REMINDER:

M-SAMC resources reflect a shared understanding of grant partners at the time of development. In keeping with our industry and college partner requirements, our products are continuously improved. Updated versions of our work can be found here: <http://www.msamc.org/resources.html>.

