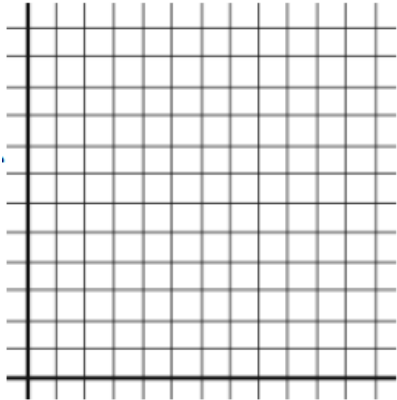
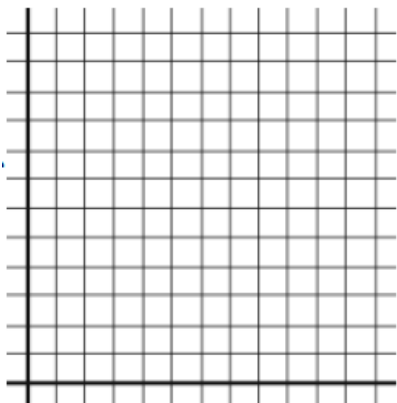


8. Bob builds tool sheds. He uses 8 sheets of dry wall and 12 studs for a small shed and 16 sheets of dry wall and 30 studs for a large shed. He has available 128 sheets of dry wall and 360 studs. If Bob makes \$400 profit on a small shed and \$500 on a large shed, how many of each type of building should Bob build to maximize his profit?



9. A company makes a product in two different factories. At factory X it takes 25 hours to produce the product and at factory Y it takes 30 hours. The costs of producing these items are \$50 at factory X and \$40 at factory Y. The company's labor force can provide 8000 hours of labor each week and resources are \$12,000 each week. How should the company allocate its labor and resources to maximize the number of products produced if the company wants to make \$75 per product at Factory X and \$100 per product at Factory Y



8. Bob builds tool sheds. He uses 9 sheets of dry wall and 45 studs for a small shed and 16 sheets of dry wall and 30 studs for a large shed. He has available 144 sheets of dry wall and 360 studs. If Bob makes \$400 profit on a small shed and \$500 on a large shed, how many of each type of building should Bob build to maximize his profit?

