1) Neither policy would directly help the elderly since both reduce their benefits. But since the conversion of Average Indexed Monthly Earnings into the Primary Insurance Amount occurs once and for all at the beginning of Social Security benefit receipt, it is reasonable to assume that Senator Dare’s proposal wouldn’t affect individuals who have already retired, and therefore it wouldn’t harm them either. In fact, it might indirectly help current retirees insofar as it improved the solvency of Social Security and the assurance that their benefits will last their lifetimes. This policy would clearly harm future retirees. Senator Snow’s proposal would harm both current and future retirees by reducing their benefits. It would be particularly harmful for retirees who happen to retire during periods of high inflation, as the incomplete indexing would cause a relatively rapid decline in the real spending power of their benefits.

2) a. The solution to this question can be determined by setting the marginal benefit of a physician office visit equal to the marginal cost. To find the marginal benefit of a physician office visit, invert the demand function so that it is expressed in terms of price, or the dollar amount a patient is willing to pay: \( Q = 10 - 0.05P \) yields \( P = 200 - 20Q \).

Setting demand equal to supply, or marginal cost, yields \( 200 - 20Q = 120 \); \( 20Q = 80 \). The patient will visit the doctor 4 times a year.

b. When the price is only $20, the quantity demanded is \( 10 - 0.05(20) = 10 - 1 = 9 \).

c. The deadweight loss triangle is bounded by a quantity difference of 5 (9 – 4) and a dollar difference of 100. The formula for the area of a triangle is \( \frac{1}{2} \times \text{base} \times \text{height} = \frac{1}{2} \times (100 \times 5) = $250, \) represented graphically,

3) a. This policy might reduce the number of uninsured people in the population by making insurance more affordable. If the previously uninsured population were able to obtain insurance affordably, those who don’t have insurance because they cannot afford it would obtain it. The 10% cap would reduce the problem of high premiums for individuals who purchase insurance separately from large employers or other risk-pooling entities, but it would not completely eliminate that problem. It is likely that if the previously uninsured bought insurance privately, it would be for a high premium because of the lack of risk pooling. Once insured, this population would face lower costs for
medical care and so would be more likely to seek it. Although there seems to be little evidence that more generous benefits improve health outcomes relative to less generous benefits, the absence of any insurance at all is associated with worse health outcomes. Thus, to the extent people avail themselves of this opportunity, their health is likely to improve.

b. This policy might dissuade employers from offering health insurance to employees because they would know that alternative coverage is available from the government. Large employers have a cost advantage in providing health insurance to their employees: they offer insurance companies large pools of enrollees who have not adversely selected coverage, they reduce administrative costs by covering many enrollees with a single contract, and because premiums are paid with pretax dollars, it is cheaper for employers to offer insurance than to increase wages by an equivalent dollar amount. If this policy crowded out employer provision, some of these sources of efficiency would be lost.

c. There are two ways this might discourage work. First, employer-provided health insurance is typically linked to full-time work requirements. This may provide a strong incentive for workers to take full-time jobs instead of part-time jobs. If workers can instead get government-subsidized health insurance while working only part-time, they may switch to part-time work. Second, consider a worker whose family income is below 20% of the cost of medical care. Then paying half of the cost of health insurance would lead them to spend more than 10% of their income on health insurance and, since the government limits the amount families pay to a maximum of 10% of family income, the government would have to contribute the difference. If the worker were to choose to work more, his family income would rise, so 10% of his income would be higher, and the government would contribute less for health insurance. Effectively, the 10% income limit forces low income workers to spend some of their additional earnings on insurance that the government would have provided if they didn’t work. This is like a tax on working, which discourages work.

4) a. A dollar-for-dollar reduction in benefits is essentially a 100% tax rate, surely a substantial deterrent to working for many people. No worker who values leisure would ever take a job earning less than $12,000, since his effective wage is zero in that range. Similarly, it is unlikely that a worker would ever choose to earn slightly more than $12,000 since it would require substantial effort but increase his take-home pay to only slightly above the government guarantee. Hence, the government guarantee and the $1 for $1 benefit reduction system will lead to many potential workers choosing to supply no work effort. The new system will encourage these workers to increase their work effort by effectively reducing their tax rate by 50%.

The policy change will discourage the work effort of other workers. For workers who earned between $12,000 and $24,000 under the $1 for $1 reduction system, for example, the policy change will have two effects, both of which tend to reduce their effort. First, there is an income effect: these workers used to receive no support from the government, since the benefit reduction phased out at $12,000 in earned income. After the policy change, the benefit reduction doesn’t phase out until $24,000. Hence, these workers begin to receive some government support after the policy change, increasing their total
income. Since they value leisure, this income effect will lead them to reduce their work effort. Furthermore, because they now find themselves in the phase-out region, their effective tax rate increases to 50% (from 0%) under the policy change. This substitution effect also leads them to reduce work effort.

Furthermore, workers who earned slightly more than $24,000 before the policy change may also be induced to reduce—but never to increase—their work effort: the slower phase-out makes earning amounts between $12,000 and $24,000 more appealing. For example, a worker earning $25,000 under the old system could reduce pretax earnings to $23,000 and would now receive $500 in government support, making the reduction in work effort more appealing.

5) In each graph, assume that a person can work at most 24 hours per day times 30 days per month for a total of 720 hours. Thus, the axis intercepts, in the absence of any program, are $720 \times 12 = \$8,640$ in consumption and 720 hours of leisure.

a. 

![Graph a](image)

b. 

![Graph b](image)

c. 

![Graph c](image)