You own a construction company that builds and sells houses in a perfectly competitive market. The market price is $200,000 per house. Your variable costs include workers' wages and raw materials used to build the houses. You pay each worker $20,000 per year, and raw materials cost $20,000 per house.

Suppose that output per worker has increased, perhaps because of a technological advance in the construction industry or because you are able to hire more highly skilled workers than in previous periods. Although worker productivity has risen, wage rates have not changed. This productivity improvement will decrease the cost of producing a house. For the same $20,000 per worker, you can build more houses.

The table shows your costs after the improvement in worker productivity.

Quantity	Workers	Labor Cost	Raw Materials Cost	Total Variable Cost	Total Fixed Cost	Total Cost	Marginal Revenue
1	5	$ 100,000	$20,000	$ 120,000	$180,000	$ 300,000	$200,000
2	9	180,000	40,000	220,000	180,000	400,000	200,000
3	12	240,000	60,000	300,000	180,000	480,000	200,000
4	16	320,000	80,000	400,000	180,000	580,000	200,000
5	21	420,000	100,000	520,000	180,000	700,000	200,000
6	27	540,000	120,000	660,000	180,000	840,000	200,000
7	34	680,000	140,000	820,000	180,000	1,000,000	200,000
8	42	840,000	160,000	1,000,000	180,000	1,180,000	200,000
9	51	1,020,000	180,000	1,200,000	180,000	1,380,000	200,000
10	61	1,220,000	200,000	1,420,000	180,000	1,600,000	200,000

1.1. What is the average total cost per house if you build 10 houses?

$
Please enter a whole number, with no decimal point.

You own a construction company that builds and sells houses in a perfectly competitive market. The market price is $200,000 per house. Your variable costs include workers' wages and raw materials used to build the houses. You pay each worker $20,000 per year, and raw materials cost $20,000 per house.

Suppose that output per worker has increased, perhaps because of a technological advance in the construction industry or because you are able to hire more highly skilled workers than in previous periods. Although worker productivity has risen, wage rates have not changed. This productivity improvement will decrease the cost of producing a house. For the same $20,000 per worker, you can build more houses.

The table shows your costs after the improvement in worker productivity.

Quantity	Workers	Labor Cost	Raw Materials Cost	Total Variable Cost	Total Fixed Cost	Total Cost	Marginal Revenue
1	5	$ 100,000	$20,000	$ 120,000	$180,000	$ 300,000	$200,000
2	9	180,000	40,000	220,000	180,000	400,000	200,000
3	12	240,000	60,000	300,000	180,000	480,000	200,000
4	16	320,000	80,000	400,000	180,000	580,000	200,000
5	21	420,000	100,000	520,000	180,000	700,000	200,000
6	27	540,000	120,000	660,000	180,000	840,000	200,000
7	34	680,000	140,000	820,000	180,000	1,000,000	200,000
8	42	840,000	160,000	1,000,000	180,000	1,180,000	200,000
9	51	1,020,000	180,000	1,200,000	180,000	1,380,000	200,000
10	61	1,220,000	200,000	1,420,000	180,000	1,600,000	200,000

1.2. Before the productivity improvement, the average total cost of building four houses was $185,000 (given fixed costs of $180,000). How much lower is the average total cost of building four houses after the productivity improvement?

$

Please enter a whole number, with no decimal point.

You own a construction company that builds and sells houses in a perfectly competitive market. The market price is $200,000 per house. Your variable costs include workers' wages and raw materials used to build the houses. You pay each worker $20,000 per year, and raw materials cost $20,000 per house.

Suppose that output per worker has increased, perhaps because of a technological advance in the construction industry or because you are able to hire more highly skilled workers than in previous periods. Although worker productivity has risen, wage rates have not changed. This productivity improvement will decrease the cost of producing a house. For the same $20,000 per worker, you can build more houses.

The table shows your costs after the improvement in worker productivity.

Quantity	Workers	Labor Cost	Raw Materials Cost	Total Variable Cost	Total Fixed Cost	Total Cost	Marginal Revenue
1	5	$ 100,000	$20,000	$ 120,000	$180,000	$ 300,000	$200,000
2	9	180,000	40,000	220,000	180,000	400,000	200,000
3	12	240,000	60,000	300,000	180,000	480,000	200,000
4	16	320,000	80,000	400,000	180,000	580,000	200,000
5	21	420,000	100,000	520,000	180,000	700,000	200,000
6	27	540,000	120,000	660,000	180,000	840,000	200,000
7	34	680,000	140,000	820,000	180,000	1,000,000	200,000
8	42	840,000	160,000	1,000,000	180,000	1,180,000	200,000
9	51	1,020,000	180,000	1,200,000	180,000	1,380,000	200,000
10	61	1,220,000	200,000	1,420,000	180,000	1,600,000	200,000

1.3. What is the marginal cost of building a sixth house?

$

Please enter a whole number, with no decimal point.

You own a construction company that builds and sells houses in a perfectly competitive market. The market price is $200,000 per house. Your variable costs include workers' wages and raw materials used to build the houses. You pay each worker $20,000 per year, and raw materials cost $20,000 per house.

Suppose that output per worker has increased, perhaps because of a technological advance in the construction industry or because you are able to hire more highly skilled workers than in previous periods. Although worker productivity has risen, wage rates have not changed. This productivity improvement will decrease the cost of producing a house. For the same $20,000 per worker, you can build more houses.

The table shows your costs after the improvement in worker productivity.

Quantity	Workers	Labor Cost	Raw Materials Cost	Total Variable Cost	Total Fixed Cost	Total Cost	Marginal Revenue
1	5	$ 100,000	$20,000	$ 120,000	$180,000	$ 300,000	$200,000
2	9	180,000	40,000	220,000	180,000	400,000	200,000
3	12	240,000	60,000	300,000	180,000	480,000	200,000
4	16	320,000	80,000	400,000	180,000	580,000	200,000
5	21	420,000	100,000	520,000	180,000	700,000	200,000
6	27	540,000	120,000	660,000	180,000	840,000	200,000
7	34	680,000	140,000	820,000	180,000	1,000,000	200,000
8	42	840,000	160,000	1,000,000	180,000	1,180,000	200,000
9	51	1,020,000	180,000	1,200,000	180,000	1,380,000	200,000
10	61	1,220,000	200,000	1,420,000	180,000	1,600,000	200,000

1.4. Before the productivity improvement, the marginal cost of building a ninth house was $240,000 (given fixed costs of $180,000). How much lower is the marginal cost of building a ninth house after the productivity improvement?

$

Please enter a whole number, with no decimal point.

There are 1,000 firms in the home-building industry. Assume that labor productivity increases in each of these firms. Following this improvement in labor productivity, each firm is willing to produce more houses than before, for exactly the same reason that your firm produced additional houses. The table shows market demand, the initial market supply, and the new market supply following the increase in labor productivity.

Price	Initial Market Supply	Market Demand	New Market Supply
$140,000	4,000	10,000	6,000
160,000	5,000	9,000	7,000
180,000	6,000	8,000	8,000
200,000	7,000	7,000	9,000
220,000	8,000	6,000	10,000
240,000	9,000	5,000	11,000
260,000	10,000	4,000	12,000
280,000	11,000	3,000	13,000
300,000	12,000	2,000	14,000
320,000	13,000	1,000	15,000

2.1. What is the new equilibrium price following the increase in labor productivity?

- ○ **A.** $220,000
- ○ **B.** $200,000
- ○ **C.** $240,000
- ○ **D.** $180,000
- ○ **E.** $140,000

There are 1,000 firms in the home-building industry. Assume that labor productivity increases in each of these firms. Following this improvement in labor productivity, each firm is willing to produce more houses than before, for exactly the same reason that your firm produced additional houses. The table shows market demand, the initial market supply, and the new market supply following the increase in labor productivity.

Price	Initial Market Supply	Market Demand	New Market Supply
$140,000	4,000	10,000	6,000
160,000	5,000	9,000	7,000
180,000	6,000	8,000	8,000
200,000	7,000	7,000	9,000
220,000	8,000	6,000	10,000
240,000	9,000	5,000	11,000
260,000	10,000	4,000	12,000
280,000	11,000	3,000	13,000
300,000	12,000	2,000	14,000
320,000	13,000	1,000	15,000

2.3. If the market price is $180,000, what is the maximum economic profit your construction company can earn?

Use this table to help answer the question.

Quantity	Total Variable Cost	Total Fixed Cost	Total Cost	Average Total Cost	Marginal Cost
1	$ 120,000	$180,000	$300,000	$300,000	$120,000
2	220,000	180,000	400,000	200,000	100,000
3	300,000	180,000	480,000	160,000	80,000
4	400,000	180,000	580,000	145,000	100,000
5	520,000	180,000	700,000	140,000	120,000
6	660,000	180,000	840,000	140,000	140,000
7	820,000	180,000	1,000,000	142,857	160,000
8	1,000,000	180,000	1,180,000	147,500	180,000
9	1,200,000	180,000	1,380,000	153,333	200,000
10	1,420,000	180,000	1,600,000	160,000	220,000

○ **A.** $240,000

○ **B.** $180,000

○ **C.** $120,000

○ **D.** 0

○ **E.** $260,000

3. The market supply and demand schedules are reproduced in the following table. The column "Initial Market Supply" shows the market supply before the increase in productivity. The column "New Market Supply" shows the market supply after the increase in productivity (and implicit decrease in variable costs).

Price	Initial Market Supply	Market Demand	New Market Supply
$140,000	4,000	10,000	6,000
160,000	5,000	9,000	7,000
180,000	6,000	8,000	8,000
200,000	7,000	7,000	9,000
220,000	8,000	6,000	10,000
240,000	9,000	5,000	11,000
260,000	10,000	4,000	12,000
280,000	11,000	3,000	13,000
300,000	12,000	2,000	14,000
320,000	13,000	1,000	15,000

Using blue points (circle symbol), plot the endpoints of the demand curve. Line segments will automatically connect the points. Using orange points (square symbol), plot the endpoints of the original supply curve. Then, using red points (cross symbol), plot the endpoints of the new supply curve. Finally, place a single purple point (diamond symbol) at the new equilibrium price and quantity.

4. In a previous question, you determined that your construction company was earning an economic profit in the short run. (Even after the price of homes fell to $180,000, your company still enjoyed an economic profit.) Now it is time to turn to the long run. In the long run, the number of construction companies producing in the market can change. Fill in each of the following blanks with the word "increase" or "decrease."

In response to short-run economic profits, the number of home-construction companies will _____ in the long run. As a result, the supply of homes in the market will _____. Because of this change in market supply, the price of homes will _____, and the economic profits of home-construction companies will _____.

○ **A.** Increase; increase; increase; increase

○ **B.** Increase; decrease; increase; decrease

○ **C.** Decrease; decrease; decrease; decrease

○ **D.** Decrease; decrease; increase; increase

○ **E.** Increase; increase; decrease; decrease

REO # L120B56

REAL ESTATE PURCHASE ADDENDUM

This Real Estate Purchase Addendum ("Addendum") is to be made part of, and incorporated into, the Real Estate Purchase Contract (the "Contract"), between FANNIE MAE ("Seller") and CHAD DEBIE ("Purchaser") for the property and improvements located at the following address: 220 MAIN ST N EDEN, ID 83325 ("Property"). As used in this Addendum, the Contract, Addendum and any riders thereto shall be collectively referred to as the "Agreement".

The Seller and the Purchaser agree as follows:

1. Offer:

   (a) Acknowledgement of Sufficient Offer: The Purchaser has offered to purchase the property for a purchase price in the amount of $25,875.00 in accordance with the terms set forth in the Agreement ("Offer"). The Seller has reviewed the Offer and deemed it materially sufficient on March 07, 2013 ("Acknowledgement Date").

   (b) Acceptance of Offer: Notwithstanding Seller's acknowledgement that the Offer is sufficient for acceptance, the Purchaser agrees that the Agreement remains subject to acceptance by the Seller and must be signed by all parties in order to be binding. The Agreement shall be effective as of the date of execution by Seller ("Effective Date"). The Purchaser's earnest money deposit of $2,587.00 is to be placed in a trust account acceptable to the Seller within two (2) calendar days following the Effective Date. The Agreement, signed by the Purchaser and reflecting the terms as acknowledged by the Seller, must be received by the Seller within five (5) calendar days of the Acknowledgement Date. If the Seller does not receive the signed Agreement by such date, the Purchaser's offer shall be deemed null and void. As used in this paragraph, the term "received by the Seller" means actual receipt of the Agreement by the Seller's listing agent.

   The Purchaser shall present proof, satisfactory to the Seller, of the Purchaser's funds or prequalification for a mortgage loan in an amount and under terms sufficient for the Purchaser to perform its obligations under this Agreement. The prequalification shall include but is not limited to, a certification of prequalification or a mortgage loan commitment from a mortgage lender, a satisfactory credit report and/or proof of funds sufficient to meet the Purchaser's obligations under the Agreement. The Purchaser's submission of proof of prequalification is a condition precedent to the Seller's acceptance. The Seller may require the Purchaser to obtain, at no cost to the Purchaser, loan prequalification from a Seller approved third party lender. Notwithstanding any Seller required prequalification, the Purchaser acknowledges that Purchaser is free to obtain financing from any source.

2. Time is of the Essence: Settlement Date:

   (a) It is agreed that time is of the essence with respect to all dates specified in the Agreement. This means that all deadlines are intended to be strict and absolute.

   (b) The closing shall take place on a date ("Settlement Date") on or before March 22, 2013 ("Expiration Date"), unless extended in writing signed by the Seller and the Purchaser or extended by the Seller under the terms of the Agreement. The closing shall be held at a place so designated and approved by the Seller unless otherwise required by applicable law. The Purchaser has the right to make an independent selection of their own attorney, settlement company, escrow company, title company and/or title insurance company in connection with the closing. The date the closing takes place shall be referred to as the Settlement Date for purposes of the Agreement. If the closing does not occur by the Expiration Date, or in any extension, the Agreement is automatically terminated and the Seller may retain any earnest money deposit as liquidated damages.

5. Positive economic profits in the short run will attract new firms to the home-construction industry. The new companies will increase the market supply. This increased market supply will lower the price of homes and therefore lower the economic profits of the home-producing companies. New sellers will continue to enter and the price of homes will continue to decrease until long-run equilibrium is reached. When the new long-run equilibrium is reached, the new equilibrium quantity for the company is _____ , and the new equilibrium price is $_____ .

Use the table below to help you answer this question.

Quantity	Total Variable Cost	Total Fixed Cost	Total Cost	Average Total Cost	Marginal Cost
1	$ 120,000	$180,000	$300,000	$300,000	$120,000
2	220,000	180,000	400,000	200,000	100,000
3	300,000	180,000	480,000	160,000	80,000
4	400,000	180,000	580,000	145,000	100,000
5	520,000	180,000	700,000	140,000	120,000
6	660,000	180,000	840,000	140,000	140,000
7	820,000	180,000	1,000,000	142,857	160,000
8	1,000,000	180,000	1,180,000	147,500	180,000
9	1,200,000	180,000	1,380,000	153,333	200,000
10	1,420,000	180,000	1,600,000	160,000	220,000

- ○ **A.** Seven; $160,000
- ○ **B.** Nine; $200,000
- ○ **C.** Six; $140,000
- ○ **D.** Eight; $180,000
- ○ **E.** Five; $120,000