

Homework 1

This homework is due in class on Monday 10/5/09. You are encouraged to work on the problem sets as a group, but each student must hand in their own problem set. Presentation will count for 10% of the grade.

1 Course material [75]

1.1 Sets of real numbers

Textbook Questions: Section 1.1: 32, 34, 38, 40, 42, 46, 50, 52

1.2 Review of integer exponents

Textbook Questions: App. B1: 6, 10, 12, 16, 18, 20, 24, 30, 38, 42, 46

1.3 Review of factoring

Textbook Questions: App. B4: 2, 4, 6, 10, 14, 26, 62

1.4 Review of fractional expressions

Textbook Questions: App. B5: 2, 8, 10, 16, 20, 26, 40, 46, 50

1.5 Absolute value

Textbook Questions: Section 1.2: 10, 14, 16, 22, 26, 40, 44, 56, 60

1.6 Solving equations

Textbook Questions: Section 1.3: 6, 10, 16, 22, 28, 32, 36, 44, 48, 56, 62, 70

2 Applied Problem [25]

This is a practical problem for choosing a Health Club based on initial cost and monthly cost. In presenting your answers, you must explain your reasoning very clearly, both in words and in mathematical form. The explanation and reasoning counts for 10 out of the 25 points for this question.

You are choosing between two health clubs. Club A offers membership for a initial fee of \$40 plus a monthly fee of \$25 dollars. Club B offers membership for a initial fee of \$15 plus a monthly fee of \$30. After how many months will the total cost at each health club be the same? After 10 months which plan will cost more? How much more?