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even answers (4.2):

6. c

12, 14, 16. [you check on graphing calculator]

28. [check on graphing calculator]
    It is the graph of $y=2^x$, shifted RIGHT 1 unit

30. It is the graph of $y=2^x$, shifted UP 1 unit

32. It is the graph of $y=2^x$ shifted to the RIGHT 1 unit and DOWN 3 units.

Homework questions?

mad $crilla

or how mr. shah taught me to be a millionaire

Let's start simple and get more complicated.....

I have a dollar. It is in a magical bank which compounds interest as often or infrequently as you want in a year. The interest rate is 100%.

Compounded once at the end of the year:

Compounded twice, 50% halfway throughout the year, 50% at the end of the year.

Compounded three times.
33.3% after the first third;
33.3% after the second
third; 33.3% at the end of
the year

Compounded four times.
25% at the end of the first
quarter of the year; 25%
at the second quarter;
25% at the third quarter;
25% at the end.

# of compounding periods	money!

$e \approx 2.718281828459$

(but like pi, doesn't repeat)

Like pi, it's a very special number that pops up EVERYWHERE...

so we'll get comfortable using it.

Find it on your calculator, and approximate:

(a) e^{1}
(b) e^{3}
(c) $e^{.5}$

Let's talk about retirement...

You put $2000 a year into a retirement account from age 20-29, which earns 12% interest.

Your evil twin puts $2000 a year into a retirement account from age 30 to age 60, which earns 12% interest also.

Who has more money at age 60?

obviously you're going to guess you do!

but now the question is HOW MUCH MORE?

COMPOUND INTEREST formula:

$$A = P(1 + \frac{r}{n})^{nt}$$

Suppose that $100,000 is invested at 6.5% interest, compounded semiannualy.

A) Find a function for the amount of money after *t* years
B) Graph the function
C) Find the amount of money in the account at t=0, 4, 8, and 10 years.
D) When will the amount of money in the account reach $400,000?

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Suppose that $100,000 is invested at 6.5% interest, compounded semiannualy.

D) When will the amount of money in the account reach $400,000?

Homework:

Section 4.2:
#1,3, 7, 8, 10, 21, 23, 24, 43, 45, 46, 55, 56