Name: _____   Date: _____

Using TI-Nspire™ to Calculate Mortgage Payments

This worksheet will show you how to use TI-Nspire™ to calculate mortgage payments such as those in the Tech Tip on pages 170–171.

a) Kara is buying her first home for $255 000. Kara plans to make a 5% down payment and mortgage the rest. Her bank offers a 4.69% interest rate for a 5-year fixed rate mortgage based on an amortization period of 25 years. How much of a mortgage does Kara need?

Turn on the calculator, and open a new calculator page. Check off each step as you complete it.

☐ Calculate the down payment.

$255 000 × 5% = $_____

☐ Subtract the down payment from the price of the house.

$255 000 − $_____

= $_____
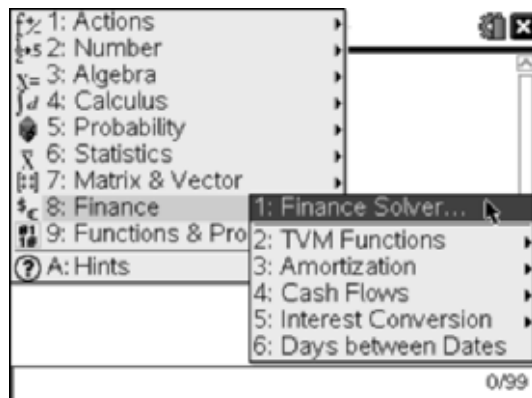
Kara needs a mortgage for

$_____.
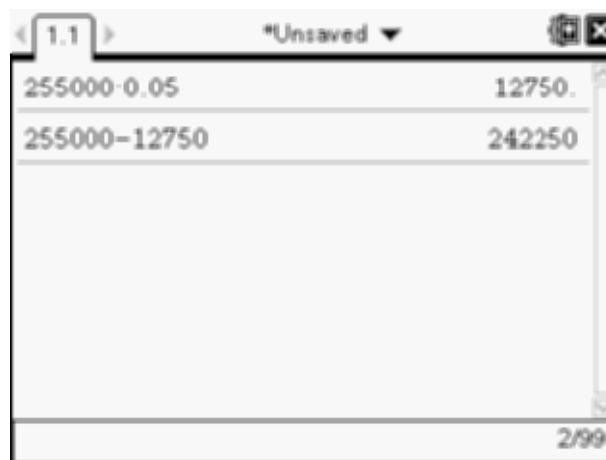
b) Use the Finance Solver to determine Kara's monthly mortgage payment.

☐ Set the calculator mode to display two decimal places. Press the **HOME** key, and access the settings. Change the **Display Digits** to **Fix 2**. Press **OK**.
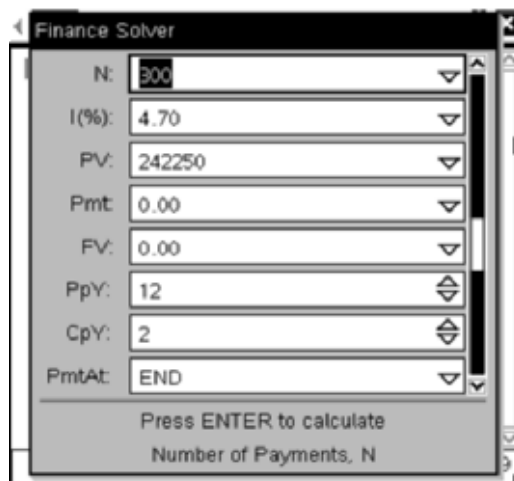
Name: _____ Date: _____
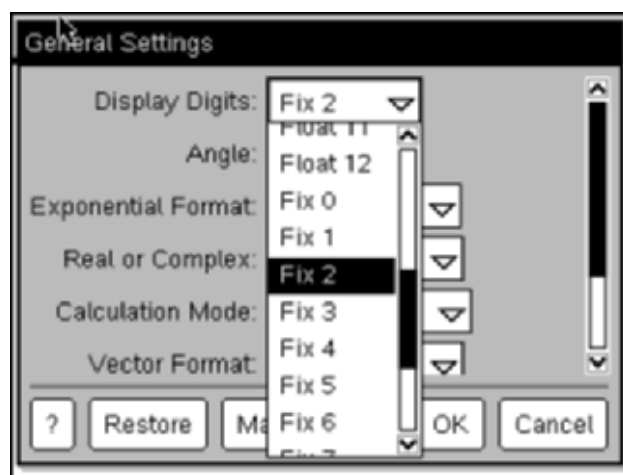
☐ Access the Finance Solver. Press **menu.** Select **Finance**, and then, **Finance Solver...** .

☐ Set the variables. Use the **tab** key to scroll down.

- N is the number of payments. N = _____.

- I% is the interest rate in %. I% = _____.

- PV stands for _____. This is the amount borrowed. PV = _____.

- PMT stands for Payment. This is the value we want to calculate. Let PMT = 0 for now.

- FV is the _____ of the mortgage after all of the payments are made. Set FV = 0.

- P/Y stands for _____. Since Kara is making monthly payments, set P/Y = 12.

- C/Y is the number of times the interest is compounded in one year. All fixed rate mortgages in Canada have interest compounded twice per year. C/Y = 2.

- The last line deals with when payments are due. The first payment is due at the END of the first month, so **END** needs to be highlighted.

When you are finished, your screen should appear as shown.

Name: _____   Date: _____

☐ After you set all of the variables, **tab** to **PMT**. Press **ENTER**. The payment will be displayed.

PMT = $_____

Notice that the answer is negative. The Finance Solver distinguishes between money received (+) and money given (−). The negative value makes sense, since each payment is money that Kara gives up.