

practice test chapter 8 solutions worked out

Chapter 8 Practice Test

Name:

Period:

Q. You are purchasing a car that costs \$24,450 financed over 5 years at 4.50% interest. (#1-3)

1. What is the monthly payment on this car?

$$24450 \left(\frac{.045}{12} \right) / \left(1 - \left(1 + \frac{.045}{12} \right)^{-60} \right)$$

$$\boxed{\$455.82}$$

2. How much interest will you pay during the life of the loan?

$$455.82 \times 60$$

$$= 27,349.20 - 24,450 = \boxed{2,899.20}$$

3. How much would you save each month if you negotiate a lower interest rate of 3.5%?

$$\begin{array}{r} \$455.82 \quad r = .045 \\ - \$444.78 \quad r = .035 \\ \hline \$11.03 \end{array}$$

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Name:

Period:

Q. You are purchasing a car that costs \$24,450 financed over 5 years at 4.50% interest. (#1-3)

1. What is the monthly payment on this car?

$$MP = \$455.82$$
$$24450 \left(\frac{.045}{12} \right) / \left(1 - \left(1 + \frac{.045}{12} \right)^{-60} \right)$$

2. How much interest will you pay during the life of the loan?

$$\begin{array}{r} \$27,349.20 \\ -24,450.00 \\ \hline \end{array}$$
$$\$2,399.20$$

3. How much would you save each month if you negotiate a lower interest rate of 3.5%?

$$\$11.03$$

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Q. You are purchasing a \$160,000 home on March 10th and make 8% down payment. The interest rate is 4.25%. You are financing it over 30 years. (#5-10)

4. How much is your down payment?

$$160000 \times .08 = \$12,800$$

5. How much is the amount financed?

$$\$147,200$$

6. What is the prepaid interest cost?

(Loan amt x rate)/365 = daily interest x # of days left in month = prepaid interest

$$\$ 359.93$$

7. What is your monthly payment?

$$\$724.14$$

8. How much would you **save each month** if the interest rate is 3.9% instead?

$$MP = \$694.30$$

$$MP = \$724.14 \qquad \$29.84$$

9. What is the price range of the closing costs? (2%-5%)

closing costs are 2-5% of

Loan amount \$147,200

$$\$2,944.00$$

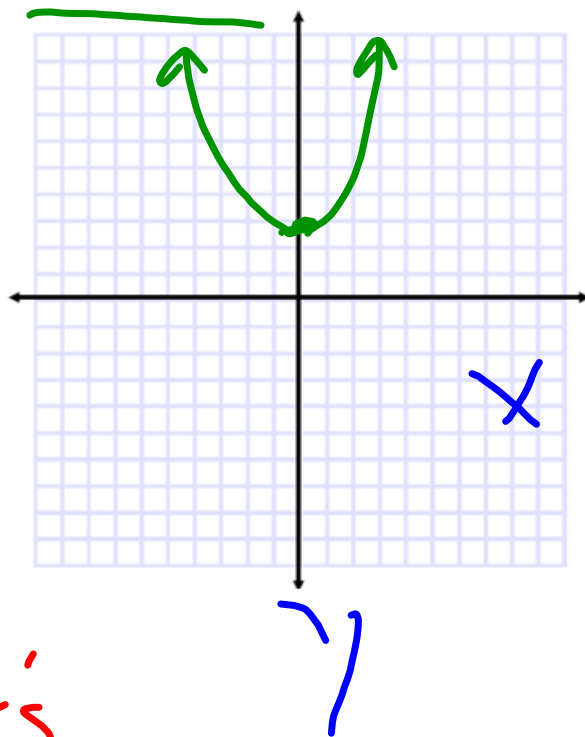
$$\$7,360.00$$

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Graph each function and find the domain and range. (Use interval notation)

10. $f(x) = x^2 + 3$

D: $(-\infty, \infty)$
R: $[3, \infty)$

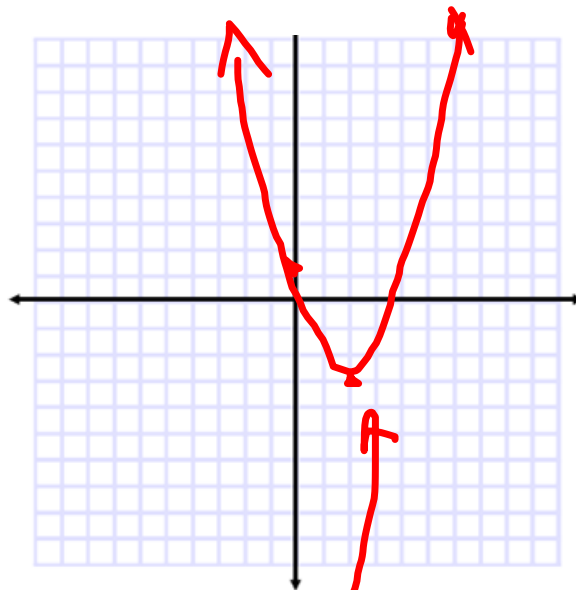


D: ALL REAL #'s

R: $y \geq 3$

11. $g(x) = (x-2)^2 - 3$

D: all real #s
R: $y \geq -3$



or

D: $(-\infty, \infty)$

R: $[-3, \infty)$

VERTEX

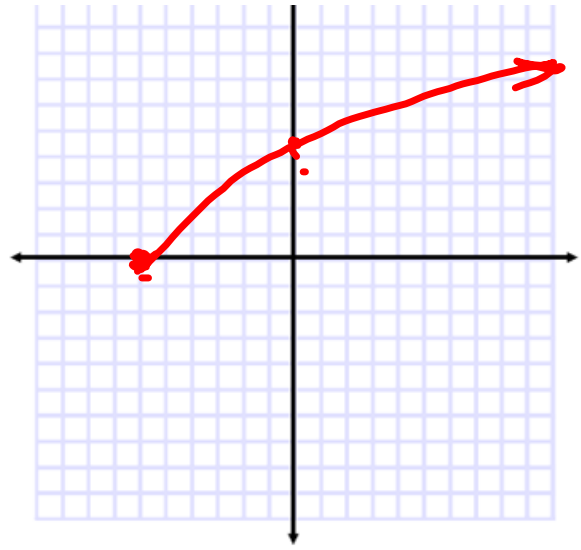
$(2, -3)$

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12. $h(x) = \sqrt{3x + 18}$

D: $[-6, \infty)$

R: $[0, \infty)$



$$\begin{array}{r} 3x + 18 \geq 0 \\ -18 \quad -18 \\ \hline \end{array}$$

$$\begin{array}{r} 3x \geq -18 \\ \hline 3 \quad 3 \end{array}$$

$$\boxed{x \geq -6}$$

$$y = \sqrt{3x + 18}$$