

Trig

Review Ch. 4

Quiz 4.7-4.8 today

Test Ch. 4 is Mon.

PT p.A-S9

$$\frac{30+x}{500} = \frac{x}{350}$$

(25) $D = R \cdot T$

Car	$500 = (R+30)t$
Train	$350 = (R)t$

$$\begin{array}{r} 500 = R + 30t \\ - 350 = -tR \\ \hline \end{array}$$

$$\frac{150}{30} = \frac{30t}{30}$$

$$5 = t$$

$$\frac{350}{5} = \frac{R \cdot 5}{5} \quad R = 70 \frac{\text{km}}{\text{hr}}$$

$$x^3 - 2x^2 - 4x + 8$$

$$x = 2 + 0i$$

$$x = 2 + 0i$$

$$x = -2 + 0i$$

$$x = -3i$$

$$x = 3i$$

$$0 + 3i \quad 0 - 3i$$

$$\oplus \quad 2, 0$$

$$\ominus \quad 1$$

$$\begin{array}{r|rrrr} 2 & 1 & -2 & -4 & 8 \\ & \downarrow & 2 & 0 & -8 \\ \hline & 1 & 0 & -4 & 0 \end{array}$$

$$x^2 - 4 = 0$$

$$\sqrt{x^2} = \sqrt{4}$$

$$x = \pm 2$$

Determine whether each number is a root of $a^3 - 3a^2 - 3a - 4 = 0$. Explain.

11. 0

12. 4

13. -2

Is $r=0$?

Find the discriminant of each equation and describe the nature of the roots of the equation. Then solve the equation by using the Quadratic Formula.

16. $2x^2 - 7x - 4 = 0$

Use the Remainder Theorem to find the remainder for each division. State whether the binomial is a factor of the polynomial.

If $r=0$

22. $(x^3 - x^2 - 10x - 8) \div (x + 2)$

List the possible rational roots of each equation. Then determine the rational roots.

26. $x^3 - 2x^2 - x + 2 = 0$

Find the number of possible positive real zeros and the number of possible negative real zeros for each function. Then determine the rational zeros.

34. $f(x) = x^3 - x^2 - 34x - 56$

Determine between which consecutive integers the real zeros of each function are located.

37. $g(x) = 3x^3 + 1$

graphing calc>>table

Solve each equation or inequality.

44. $n - \frac{6}{n} + 5 = 0$

48. $\frac{2}{x+1} < 1 - \frac{1}{x-1}$