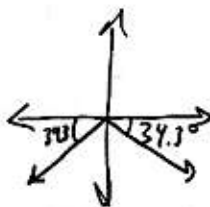


HW Solution 143

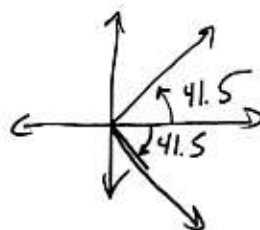
Section 6.4

(35) ~~zero~~ (a) $\sin \theta = -0.5640$
 $\theta = \sin^{-1}(-0.5640)$
 $\theta = -34.3^\circ$

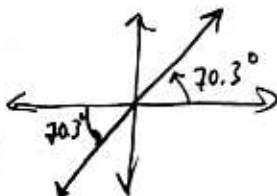


$360^\circ - 34.3^\circ = 325.7^\circ$
 and $180^\circ + 34.3^\circ = 214.3^\circ$

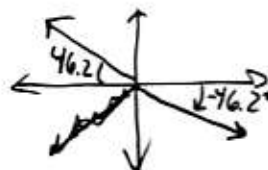
(b) $\cos \theta = 0.7490$
 $\theta = \cos^{-1}(0.7490)$
 $\theta \approx 41.5^\circ$
 $360 - 41.5 = 318.5^\circ$



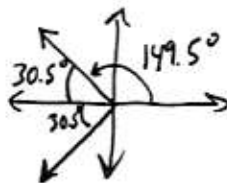
(c) $\tan \theta = 2.798$
 $\theta = \tan^{-1}(2.798)$
 $\theta \approx 70.3^\circ$
 $180^\circ + 70.3^\circ = 250.3^\circ$



(d) $\cot \theta = -0.9601$
 $\tan \theta = \frac{1}{-0.9601}$
 $\theta = \tan^{-1}\left(\frac{1}{-0.9601}\right) = -46.2^\circ$
 $360^\circ - 46.2^\circ = 313.8^\circ$
 $180^\circ - 46.2^\circ = 133.8^\circ$



(e) $\sec \theta = -1.16$
 $\cos \theta = \frac{1}{-1.16}$
 $\theta = \cos^{-1}\left(\frac{1}{-1.16}\right) \approx 149.5^\circ$
 $180^\circ + 30.6^\circ = 210.6^\circ$

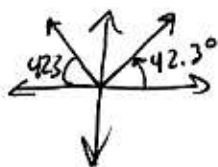


$$\textcircled{2} \csc \theta = 1.485$$

$$\sin \theta = \frac{1}{1.485}$$

$$\theta \approx 42.3^\circ$$

$$180^\circ - 42.3^\circ \approx \boxed{137.7^\circ}$$

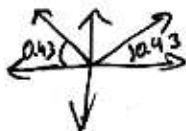


$$\textcircled{37} \textcircled{a} \sin \theta = 0.4195$$

$$\theta = \sin^{-1}(0.4195)$$

$$\theta \approx \boxed{0.43}$$

$$\pi - 0.43 \approx \boxed{2.71}$$

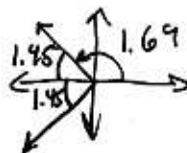


$$\textcircled{b} \cos \theta = -0.1207$$

$$\theta = \cos^{-1}(-0.1207)$$

$$\theta \approx 1.69$$

$$\pi + 1.45 = 4.59$$



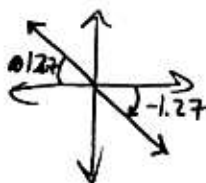
$$\textcircled{c} \tan \theta = -3.2504$$

$$\theta = \tan^{-1}(-3.2504)$$

$$\theta \approx -1.27$$

$$2\pi - 1.27 \approx 5.01$$

$$\pi - 1.27 \approx 1.87$$

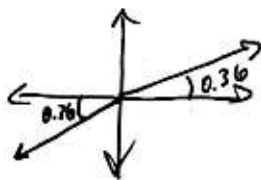


$$\textcircled{d} \cot \theta = 2.6815$$

$$\tan \theta = \frac{1}{2.6815}$$

$$\theta \approx 0.36$$

$$\pi + 0.36 \approx \textcircled{3.50}$$

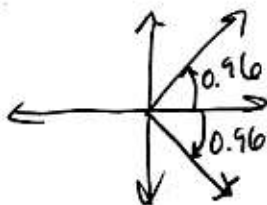


$$\textcircled{e} \sec \theta = 1.7452$$

$$\cos \theta = \frac{1}{1.7452}$$

$$\theta \approx 0.96$$

$$2\pi - 0.96 \approx 5.32$$



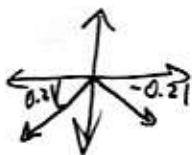
$$\textcircled{4} \cos \theta = -4.8521$$

$$2\theta = \frac{1}{-4.8521}$$

$$\theta \approx -0.21$$

$$\pi + 0.21 \approx 3.35$$

$$2\pi - 0.21 = 6.07$$



Section 3.5

$$\textcircled{3} f(x) = 5x^3 + 2x$$

$$f(-x) = 5(-x)^3 + 2(-x)$$

$$= -5x^3 - 2x$$

$$= -(5x^3 + 2x)$$

$$= -f(x)$$

odd

$$\textcircled{5} f(x) = 3x^4 + 2x^2 - 5$$

$$f(-x) = 3(-x)^4 + 2(-x)^2 - 5$$

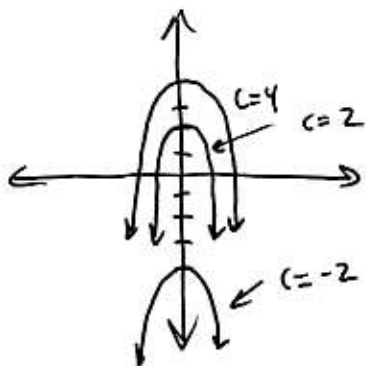
$$= 3x^4 + 2x^2 - 5$$

$$= f(x)$$

$$= f(x)$$

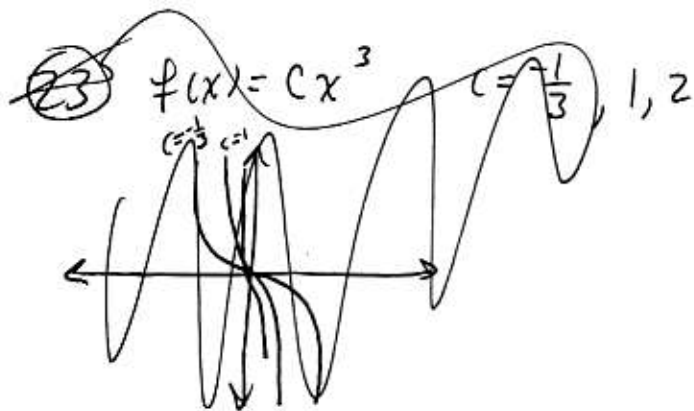
Even.

15



$$f(x) = -x^2 + C$$

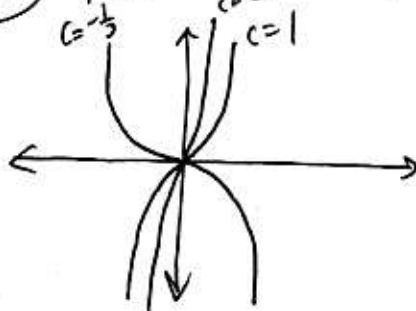
$$C = -4, 2, 4$$



23

$$f(x) = Cx^3$$

$$C = \frac{1}{3}, 1, 2$$



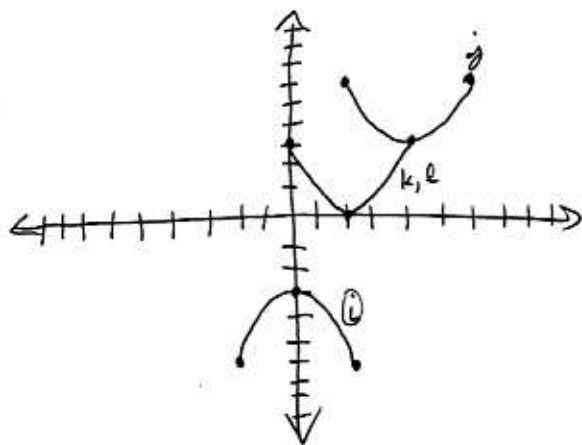
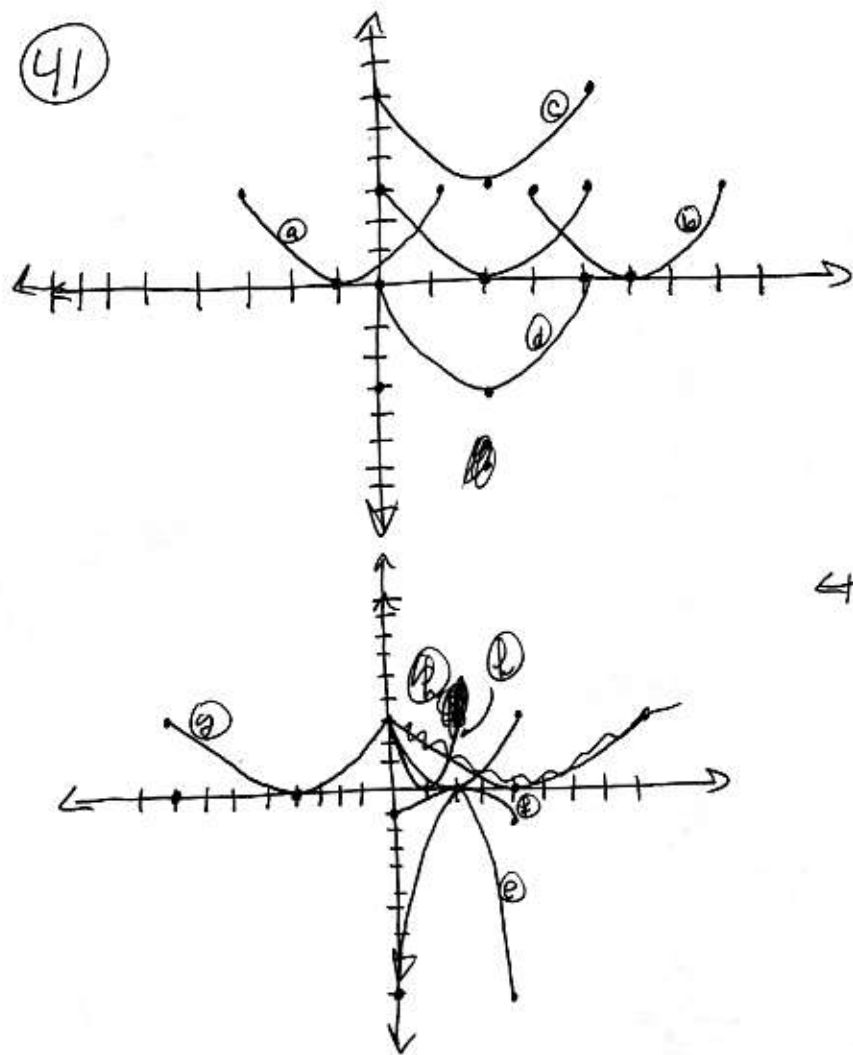
(27) $(0, 5) \xrightarrow{H} (-2, 5) \xrightarrow{V} (-2, 4)$

(29) $(3, -2) \xrightarrow{H} (7, -2) \xrightarrow{S} (7, -4) \xrightarrow{V} (7, -3)$

(35) Reflected in the y -axis and shifted down 2 units

(37) Reflected in the x -axis and shrunk vertically by a factor of $\frac{1}{2}$

(41)



(43) (a) $f(x+9) + 1$

(b) $-f(x)$

(c) $-f(x+7) - 1$