Introductory Lectures on Rings and Modules, by John A. Beachy

Errata

page 11, line -15 and line -9 *For* $r_i \in R$ *read* $r_i \in R_i$

page 18, line -8 *For* $R[s]$ *read* $R[x]$

page 23, lines 5 and 6

For Let R be any ring, and suppose that θ is a group homomorphism from G into the group $R^\times$ of units of R. We can define a ring homomorphism

read Let R be any ring that is a vector space over F and satisfies the condition $c(rs) = (cr)s = r(cs)$, for all $c \in F$ and $r, s \in R$. If $\theta : G \to R^\times$ is any group homomorphism, then we can define a corresponding ring homomorphism

page 31, line -5 and line -4 *For* $R = \mathbf{Z}[x]/\left(x^4 - 1\right)$ *read* $R = \mathbf{Q}[x]/\left(x^4 - 1\right)$

page 32, line -5

For $\frac{1}{3}(1 + \omega x + \omega^2 x^2) = \frac{1-\omega}{3}(1-x) \cdot \frac{1+2\omega}{3}(\omega^2 - x)$.

read $\frac{1}{3}(1 + \omega x + \omega^2 x^2) = \frac{1-\omega}{3}(1-x) \cdot \frac{(-1-2\omega)}{3}(\omega - x)$.

page 36, line 12 *For* $\theta : R \to \overline{R}[x]$ *read* $\theta : R \to \overline{R}$

page 43, line -6 *For* (a) Show that *read* (b) Show that

page 85, line 10 *For* $\ker(g)$ is a direct summand *read* $\ker(f)$ is a direct summand

page 87, line 3 *For* projective *it it is* *read* projective *if it is*

page 91, line -16 *For* $f(M)$ is a direct summand *read* $f(Q)$ is a direct summand

page 95, line -13 *For* *quotient field of* R. *read* *quotient field of* D.

page 114, line -5 *For* which implies that $kt = 1$, *read* which implies that $tk = 1$,

page 128, line 1 *For* $Ra_1 \subseteq Ra_2 + Ra_2 \subseteq \cdots$ *read* $Ra_1 \subseteq Ra_1 + Ra_2 \subseteq \cdots$

page 128, line -8 *For* *with* $\delta(I) \subseteq I$, *read* *with* $\delta(I) \subseteq I$, *and*

page 132, line -16 *For* $f^\epsilon_\delta f^\delta_\gamma = f^\epsilon_\gamma$. *read* $f^\gamma_\beta f^\beta_\alpha = f^\gamma_\alpha$.

page 132, line -4 *For* where $k = \phi(x)$. *read* where $k = \phi(1)$.

page 146, Exercise 2

For $\begin{bmatrix} p\mathbf{Z} & 0 \\ \mathbf{Z} & \mathbf{Z} \end{bmatrix}$ or $\begin{bmatrix} \mathbf{Z} & 0 \\ \mathbf{Z} & q\mathbf{Z} \end{bmatrix}$, for primes $p, q \in \mathbf{Z}$.

read $\begin{bmatrix} P & 0 \\ \mathbf{Z} & \mathbf{Z} \end{bmatrix}$ or $\begin{bmatrix} \mathbf{Z} & 0 \\ \mathbf{Z} & Q \end{bmatrix}$, for prime ideals P, Q of $\mathbf{Z}$.

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