Figure 2
Figure 3
Figure 4
Figure 5
Figure 7

(a) \( \theta \)

(b) \( (a, b) = \theta \)

(c) \( (a, b) = 0 \)

(d) \( (a, b) = 180^\circ \)
\( a \times b \perp a \)
\( a \times b \perp b \)
Figure 10
Axis of symmetry

Figure 13
Figure 15
Figure 16
Figure 18
\{\text{system 1}\}

\begin{align*}
\mathbf{F}_P \\
\mathbf{r}_{QP}
\end{align*}

\{\text{system 2}\}

\begin{align*}
\mathbf{F} \\
\mathbf{M}_Q
\end{align*}

\begin{align*}
\mathbf{F} &= \mathbf{F}_P \\
\mathbf{M} &= \mathbf{M}_Q = \mathbf{r}_{QP} \times \mathbf{F}_P
\end{align*}

Figure 20
Figure 21
\[ \{ \text{system 1} \} \]

\[ \mathbf{F} = F_J \]

\[ \mathbf{M} = M_{x1} + M_{yJ} \]

\[ \mathbf{P} \]

\[ M_p = M_{yJ} \]

\[ |r_{PQ}| = PQ = M_x/F \]

\[ \{ \text{system 2} \} \]

\[ \mathbf{F} = F_J \]

\[ \mathbf{M}_p = M_{yJ} \]

\[ \mathbf{P} \]

\[ PQ = M_x/F \]

Figure 22
\[ \mathbf{r}_{PQ} \times \mathbf{F} = \mathbf{M}_n \]

Figure 23
\[ \mathbf{r}_{QA_i} = \mathbf{r}_{QP} + \mathbf{r}_{PA_i} \]
Figure 26
Figure 27
Figure 29
Figure 31
Figure 32
Figure 34
Figure 38
Figure 39
Figure 41
Figure 42
Figure 44