

## IM2 Book 3 Selected Answers

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1.  $10\sqrt{2}$
2. (a)  $A = \left(\frac{\sqrt{2}}{2}, \frac{\sqrt{2}}{2}\right)$ ,  $B = \left(\frac{\sqrt{3}}{2}, \frac{1}{2}\right)$   
(b)  $\cos()$   
(c)  $\sin()$
3. (a)  $\cos(40^\circ)$   
(b)  $\sin(40^\circ)$
4. (a)  $m_{OA} = 1$ ,  $m_{OB} = \frac{\sqrt{3}}{3}$   
(b)  $\tan()$
5. 470 ft
6.  $\frac{3}{5}$
7. Length of line: 3.42 ft  
Distance to bobber: 9.40 ft
8. 23.82 ft
9. (a)  $\pi$ ;  $(-1, 0)$   
(b)  $\frac{\pi}{2}$ ;  $(0, 1)$
10. –
11. –
12. –
13.  $\cos A = \frac{\sqrt{21}}{5}$ ,  $\tan A = \frac{2}{\sqrt{21}}$ ,  $\sin^2 A + \cos^2 A = 1$
14. (a) 79 ft  
(b)  $7,873 \text{ ft}^2$   
(c) 135 ft
15.  $67^\circ$

16.  $21.6^\circ$

17. No

18. 54.8 ft

19.  $\frac{2\pi}{3}$

20.  $\frac{6\pi}{5}, \frac{9\pi}{5}$