

# Chapter 7 BLM Answers

## BLM 7-2: Chapter 7 Warm-Up

### Section 7.1

1. 120
2. 8.43
3. a) 900 b) 7 c) 0.33
4. a) 100.0 b) 32.5 c) 2.6 d) 5.1
5. a) Example:  $47^\circ$
- b) The unknown side; 10.6
- c) sine
- d)  $45^\circ$
- e) Example: My estimate was very close.

### Section 7.2

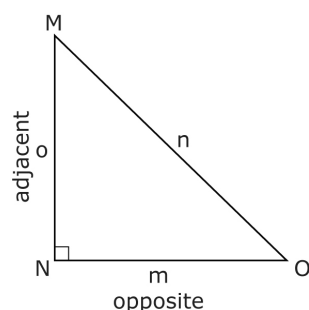
1. a) 10.2 b) 48.7
2. a) 27.70 b) 38.43 c) 121.46
3. a)  $23^\circ$  b)  $67^\circ$
4.  $\approx 52$  in.

### Section 7.3

1. 12.2
2. 79.36
3. a)  $42^\circ$  b)  $24^\circ$
4. 44.6 m
5. 15.3 m

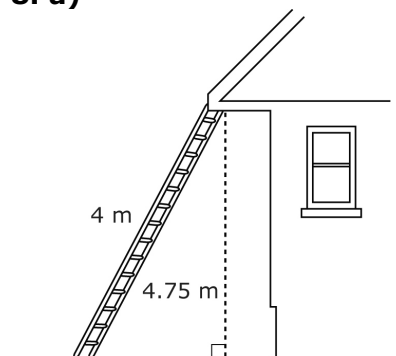
### BLM 7-3 Section 7.1 Extra Practice

1. a)  $\frac{p}{r}$  b)  $\frac{r}{q}$  c)  $\frac{p}{q}$
2. a) 15 b) 29 c) 15 d) 24
3. a)



- b)  $\frac{m}{n}$  c)  $\frac{o}{n}$
4. a) 21 b) 15 c) 44 d) 6 e) 24
5. 6.3 m
6.  $72^\circ$
7. 10.6 m

8. a)



- b) 3.86 m
- c) The ladder must be at least 4.92 m long.

### BLM 7-4 Section 7.2 Extra Practice

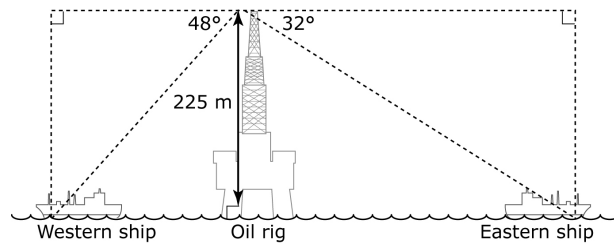
1. a) cosine b) tangent c) tangent
- d) cosine e) sine f) sine
2. a) 17 b) 35 c) 75 d) 33
- e) 161 f) 10
3. a) tangent b) sine c) cosine
- d) tangent e) sine f) cosine
4. a) 186 b) 31 c) 11 d) 165 e) 40
- f) 254
5. a)  $75^\circ$  b)  $87^\circ$  c)  $39^\circ$  d)  $65^\circ$
- e)  $10^\circ$  f)  $55^\circ$
6. a) tangent b) cosine c) sine d) tangent
7. a)  $51^\circ$  b)  $44^\circ$  c)  $43^\circ$  d)  $56^\circ$
8. 98 m
9. 15 m
10. 41 m
11.  $7^\circ$
12. a) 1.4 m b)  $27^\circ$

### BLM 7-5 Section 7.3 Extra Practice

1. a)  $x = 93$ ;  $y = 42$ ;  $z = 135$
- b)  $x = 89$ ;  $y = 32$ ;  $z = 121$
- c)  $x = 68$ ;  $y = 97$ ;  $z = 115$
- d)  $x = 39$ ;  $y = 51$ ;  $z = 62$
2. a)  $\alpha = 29^\circ$ ;  $\beta = 69^\circ$
- b)  $\alpha = 43^\circ$ ;  $\beta = 50^\circ$
- c)  $\alpha = 40^\circ$ ;  $\beta = 27^\circ$
3. a)  $x = 40$ ;  $y = 34$  b)  $x = 28$ ;  $y = 73$
- c)  $x = 17$ ;  $y = 29$  d)  $x = 20$ ;  $y = 21$
4. 26 m



**5. a)**



**b)** 565 m

**BLM 7-6 Chapter 7 Test**

**1.** B    **2.** A    **3.** D    **4.** B

**5. a)**  $28^\circ$     **b)** 17 m

**6. a)**  $60^\circ$ ;  $45^\circ$     **b)**  $58^\circ$ ;  $48^\circ$

**c)** Example: My answers were close.  
The shorter cable makes a smaller angle  
of elevation.

