# *Math Essentials 10* Teacher Learning Centre
# Answer Links

<Section 8.1 Answers>

**Answers to Activity Questions (pages 194–197)**

1. a) Answers may vary. Check to see that students have chosen 5 days in a row that are within the next month.

   b) Answers may vary. Check to see that students have chosen 7 days in a row that are during the summer months.

2. Answers may vary. Make sure that these dates correspond to the dates chosen in question 1.

3. Ensure that dates are correct. Example (using 2012):

   a) 2012/01/01

   b) 2012/05/21

   c) 2012/07/01

   d) 2012/09/04

4. Example (using 2012):

   a) February 14, 2012

   b) May 6, 2012

   c) October 30, 2012

5. a) Dates marked on the number line should reflect the dates chosen in question 1. 4 nights

   b) 4

6. 6

7. a) $09 - 01 = 8$ nights away

   b) 9 nights away

   c) 23 nights away

8. a) 26

   b) 54

   c) Example (using 2012, which is a leap year): 43

9. a) $70 \times 3 = \$210$

   b) $750

## <Section 8.2 Answers>

**Answers to Activity Questions (pages 198–201)**

1. **a)** Students should be able to recognize their province and the general area they live in.
   **b)** Eastern or Central
   **c)** Pacific
   **d)** Atlantic
2. **a)** Central, Eastern
   **b)** Central
   **c)** Thunder Bay
   **d)** 1 h ahead, 2 p.m.
   **e)** 1 h behind, 4 p.m.
   **f)** 7 a.m.
3. **a)** Example: It is morning and the sun is already up in Ontario where Silvano is, but it is 3 h earlier in Vancouver. The clock says it is only 5 a.m. Calling at this time likely will wake his aunt.
   **b)** 11 a.m.
4. **a)** 6 p.m.
   **b)** 8 p.m.
5. **a)** 3 p.m.
   **b)** 4 p.m.
   **c)** 4 p.m.
   **d)** 5 p.m.
   **e)** 5:30 p.m.
6. **a)** 10:30 p.m
   **b)** 8:30 p.m.
   **c)** 7:30 p.m.
   **d)** 12:00 midnight
7. **a)** 4:45 p.m.
   **b)** 5:45 p.m.
   **c)** 6:45 p.m.
   **d)** 2:45 p.m.

## <Section 8.3 Answers>

**Answers to Activity Questions (pages 204–207)**

**1.** **a)** August 15, 2013

**b)** Ottawa, Ontario

**c)** 8:10 a.m.

**d)** Halifax, Nova Scotia

**e)** 11:12 a.m.

**f)** Eastern, Atlantic, 1 h ahead, 10:12 a.m.

**g)** 2 h 2 min

**2.** 12:30 p.m.

**3.** **a)** 10:00 a.m.

**b)** 11:57 a.m.

**c)** Eastern, Pacific, 3 h behind, 2:57 p.m.

**4.** **a)** 7:00 a.m.

**b)** 8:57 a.m.

**c)** 11:57 a.m.

**d)** 4 h 57 min

**5.** **a)** NF1179

**b)** 9:00 a.m.

**6.** **a)** 4:30 p.m.

**b)** Calgary is 2 h behind Toronto

**c)** 2:30 p.m.

**7.** **a)** 10:30 a.m.

**b)** 8:30 a.m.

## <Section 8.4 Answers>

**Answers to Activity Questions (pages 212–214)**

**1.** 4

**2.** **a)** Bus 3

**b)** 49 h 20 min

**c)** 11:50

**3.** **a)** Bus 1

**b)** 5 h 40 min

4. **a)** 15:00

   **b)** 08:00

   **c)** 13:30

   **d)** 22:15

   **e)** 02:20

   **f)** 19:48

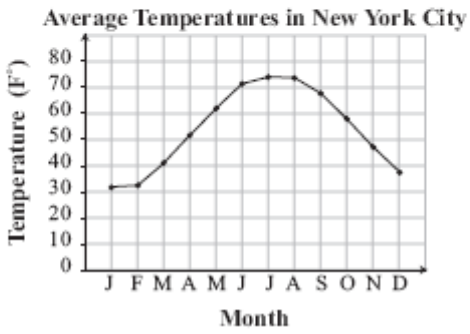
5. **a)** 10:50 p.m.

   **b)** 72 h, 10:50 p.m., 1 h 50 min, 73 h 50 min

6. 29.25 h

## <Section 8.5 Answers>

**Answers to Activity Questions (pages 217–219)**

1. 68°F
2. 32°F
3. bigger
4. −23°C
5. 37°C
6. 

7. July
8. **a)** January

   **b)** 0°C

9. **a)** July

   **b)** 25°C

10. **a)** 10°F: parka, scarf, hat, and mittens

    **b)** 27°C: T-shirt and shorts

    **c)** 10°C: long sleeved sweater and trousers

## <Section 8.6 Answers>

**Answers to Activity Questions (pages 220–223)**

1. Ensure that students provide a reason for their choice. Example:

   Plane to Vancouver: It is less expensive than the train and is only 5 h long instead of 3 days.

   Bus to New York City: It is less expensive and takes less time than the train.

2. **a)** 4, 12 gal

   **b)** 12, $52.80

   **c)** 12.7 gal

   **d)** $55.88

   **e)** lower; no

3. **a)** 15.9 gal

   **b)** $15.9 \times \$4.50 = \$71.55$

4. Example (based on $1.35/L): $81

5. Answers may depend on fuel cost.

   **a)** Example (based on $81 fuel cost): Bus is the cheapest.

   **b)** $53 cheaper than flying

6. **a)** $27

   **b)** Example: Other costs include stopping for food and having the car inspected before leaving.

## <Section 8.7 Answers>

**Answers to Activity Questions (pages 224–227)**

1. **a)** just under $200

   **b)** $200

2. The scale along the price axis is not evenly spaced and the vertical axis starts at $198.

3. Example: I would want information about location, room availability, and extra services.

4. Example: There are many services at the East Hotel and it is in a good location.

5. Answers may vary. Ensure that students provide an explanation for their answer. For example: Graph A shows a faster increase since the line rises more steeply than in Graph B.

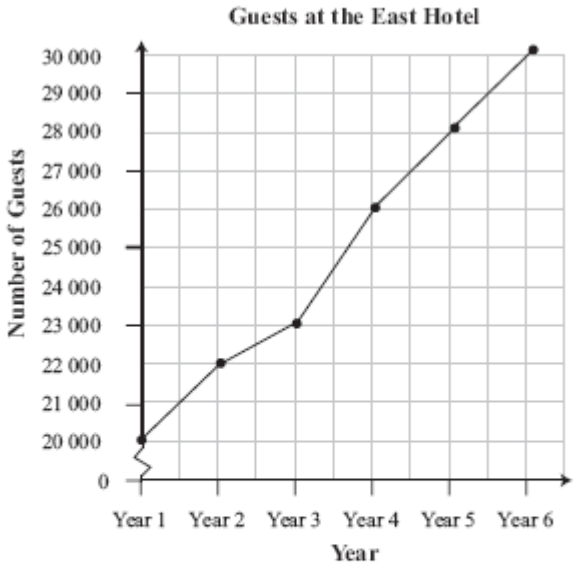
**6. a)** Graph A: 25 000, 20 000, Increase = 5000
Graph B: 25 000, 20 000, Increase = 5000

**b)** YES

**7.** Example: The 2 graphs look different because they use a different spacing for the scale on the vertical axis.

**8.** Ensure that students justify their responses.
Example: YES; The hotel might want to create the impression that the number of guests is increasing significantly.

**9.**




**10. a)** East Hotel

**b)** Example: The line is steeper on my graph and the scales are the same for mine and Graph B, so I know the East Hotel is increasing its number of guests faster.

## <Section 8.8 Answers>

**Answers to Activity Questions (pages 228–231)**

**1.** 2.2 lb, $22 \times 2.2 = 48.4$ lb, NO

**2. a)** 15 lb $\doteq$ $15 \div 2.2 \doteq 6.8$ kg, YES

**b)** 10.5 kg, NO

**3. a)** $0.5 \times 2.2 \doteq 1.1$ lb

**b)** 1.7 lb **c)** 5.5 lb

**4. a)** YES **b)** NO

**5. a)** 394.5 kg

**b)** 300 kg of flour and 5.7 kg of salt

**c)** 227.3 kg

## <Section 8.9 Answers>

**Answers to Activity Questions (pages 232–235)**

**1. a)** Students may use whichever transportation method they prefer. Example: plane because it takes the least amount of travel time

**b)** $286

**2.** Look for 3 sources. Example:

**a)** travel consultants

**b)** Internet

**c)** newspaper

**3.** Example: 5, 5, 5. Answers will vary depending on time of departure and time of arrival.

**4.** Make sure estimates are reasonable. Example: $10, $15, $20

5. Ensure calculations are correct.
Example: $5 \times \$10 = \$50$; $5 \times \$15 = \$75$; $\$20 \times 5 = \$100$; Total: \$225

6. Example:
   a) $\frac{1}{3}$
   b) about \$37.50
   c) \$187.50

7. a) Example: Sugar Hill International House; \$30 U.S./night
   b) 5 nights $\times$ \$30 U.S. = \$150 U.S.

8. Example: \$250

9. Example (based on sample answers to questions 1 and 6 to 8): \$286 CAN = \$277.42 U.S.; \$187.50; \$150; \$250; Total: \$864.92

10. Answers may vary depending on students' choices. Ensure calculations for converting are correct. Example (based on an exchange rate of \$1 U.S. = \$0.97 CAN): \$838.97

## <Chapter 8 Review Answers>

**Answers to Chapter 8 Review (pages 236–237)**

1. numerical form
2. time zone
3. degrees Celsius
4. degrees Fahrenheit
5. 12-h clock
6. 24-h clock
7. exchange rate
8. c) 32°C
9. b) 24°C
10. a) −5°
11. a) 2013/09/15
    b) 2012/12/01
12. a) June 1, 2012
    b) October 23, 2014
13. a) 11 a.m.
    b) 11:00

**14.** 10 nights

**15.** **a)** 36 kg

**b)** 46 lb

**c)** 61 L

**d)** 26 gal

**16.** **a)** Example: \$1 U.S. = \$0.97 CAN

**b)** \$19.40

**17.** **a)** Thunder Bay, ON, to Calgary, AB

**b)** 14:00 Eastern

**c)** 16:10 Mountain

**d)** 4 h 10 min

**18.** Look for 2 factors. Example:

- temperature so you know what clothes to bring
- exchange rate so you know how much money to bring.