CHAPTER 11

Practice Test

Strand	NSN	MEA	GSS	PA	DMP
Questions	1–12			1–10	12

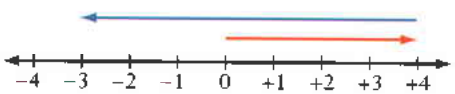
Multiple Choice

For questions 1 to 8, select the correct answer.

1. Which statement compares –3 and +2 correctly?

A –3 > +2
B +2 < –3
C –3 < +2
D None of these.

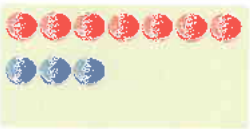
2.



The number line models

A a profit of $4 followed by a loss of $4
B a profit of $4 followed by a loss of $7
C a loss of $3 followed by a profit of $4
D a loss of $7 followed by a loss of $3

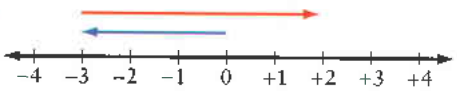
3.



The sum that is modelled is

A (+7) + (–3)
B (–7) + (–3)
C (+3) + (+7)
D (–7) + (+3)

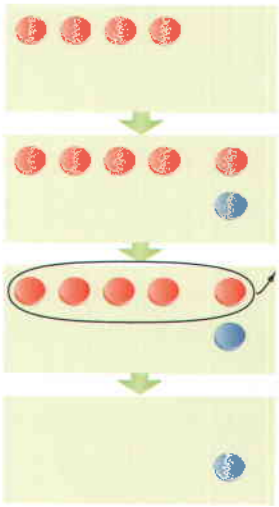
4.



The sum that is modelled is

A (–3) + (+2)
B (–3) + (–5)
C (+2) + (+5)
D (–3) + (+5)

5.



The subtraction that is modelled is

A (–4) – (–5)
B (–5) – (–4)
C (+4) – (+5)
D (–4) + (–5)

6. The result of (–10) + (+3) is

A –13
B –7
C +3
D +7

7. Which of the following does not have a result of 0?

A (–6) + (+6)
B (+6) – (–6)
C (–6) – (–6)
D (+6) – (+6)

8. The result of (–2) – (–8) is

A –10
B –6
C +6
D none of the above

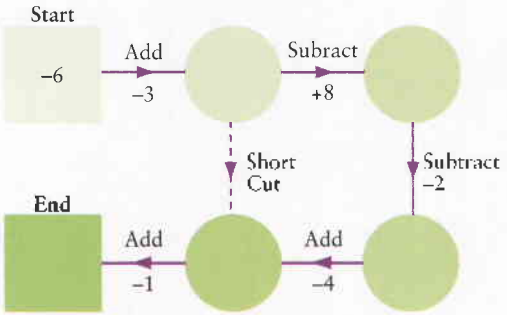
Short Answer

9. Evaluate. Use integer chips or a number line to help. Then, arrange the answers in order from least to greatest.

a) (–3) + (–6)
b) (–2) + (+7)
c) (+5) – (+12)
d) (+10) – (–6)
e) (–5) + (–5)

10. Jan went on a diving expedition in the St. Lawrence River. She went down 1 m every 2 s. The surface of the river is at an elevation of 8 m above sea level. What was Jan's depth, relative to sea level, after 30 s?

11.



a) Follow the path to find the number that belongs in the end square.

b) What instruction belongs beside the short cut?

Extended Response

12. The table shows the temperature taken every hour one night.

Time	Temperature, °C
10:00	6
11:00	4
12:00	2
1:00	0
2:00	−2
3:00	−6
4:00	−7
5:00	−4
6:00	−2

a) Find the drop in temperature from 11:00 p.m. to 3:00 a.m.

b) Which hour had the greatest drop in temperature? What was it?

c) Which hour had the greatest increase in temperature? What was it?

d) Plot a graph of the data.

e) Describe any trends in the graph.

f) Predict the change in temperature between 6:00 a.m. and 7:00 a.m. Justify your answer.

Chapter Problem Wrap-Up

In question 18 on page 351 and question 17 on page 373 you explored some parts of the wind chill chart.

What patterns or trends can you find in the wind chill chart? Describe them using

- integers
- words
- graphs, charts, or diagrams

Wind Chill Chart

Wind Speed (km/h)	Air Temperature (°C)							
	5	0	−5	−10	−15	−20	−25	−30
5	4	−2	−7	−13	−19	−24	−30	−36
10	3	−3	−9	−15	−21	−27	−33	−39
15	2	−4	−11	−17	−23	−29	−35	−41
20	1	−5	−12	−18	−24	−31	−37	−43
25	1	−6	−12	−19	−25	−32	−38	−45
30	0	−7	−13	−20	−26	−33	−39	−46
35	0	−7	−14	−20	−27	−33	−40	−47
40	−1	−7	−14	−21	−27	−34	−41	−48
45	−1	−8	−15	−21	−28	−35	−42	−48
50	−1	−8	−15	−22	−29	−35	−42	−49
55	−2	−9	−15	−22	−29	−36	−43	−50
60	−2	−9	−16	−23	−30	−37	−43	−50

Chapter 11

1. **Answer: C,** -3 < +2
2. **Answer: B,** a profit of $4 followed by a loss of $7
3. **Answer: A,** (+7) + (-3)
4. **Answer: B,** (-3) + (+5)
5. **Answer: B,** (-5) - (-4)
6. **Answer: B,** (-10) + (+3) = -7
7. **Answer: B,** (+6) - (-6) = +12
8. **Answer: C,** (-2) - (-8) = +6
9. **Ans:**
    a. (−3)+(−6)= -3 - 6= **−9**
    b. (−2)+(+7)= -2 + 7)= **+5**
    c. (+5)−(+12)= +5 − 12 = **−7**
    d. (+10)−(−6)= 10 + 6= **+16**
    e. (−5)+(−5)= −5 −5= **−10**
    f. Least → greatest: **−10, −9, −7, +5, +16** (e, a, c, b, d)
10. Down 1 m every 2s for 30s → 1m/2s = .5 m/s x 30s = 15 m down. Start is +8 m → 8−15= **−7 m**.
11. **Ans:**
    a. End number = (-6) + (-3) - (+8) - (-2) + (-4) + (-1) = **−20**
    b. Shortcut instruction = **Add −10** (same as subtract 10)
12. Table values: 10:00 6, 11:00 4, 12:00 2, 1:00 0, 2:00 −2, 3:00 −6, 4:00 −7, 5:00 −4, 6:00 −2
    a. Drop from 11:00 to 3:00 = 4 → (−6) = drops down (4) and another 6 = (-4) + (-6) = -4 6 = **-10°C**
    b. Greatest drop: **2:00am → 3:00am**, drop **4°C**
    c. Greatest increase: **4:00am → 5:00am**, increase **3°C**
    d. Points to plot: (Time (x), Temp (y) **(10, 6), (11, 4), (12, 2), (1, 0), (2, −2), (3, −6), (4, −7), (5, −4), (6, −2)**
    e. Trend: temperature **decreases by 2°C each hour** until **2:00am**, drops down **4°C from 3:00-4:00am,** then **rises** 3:00am onward.
    f. Predicted change 6:00am → 7:00am: **increase by 2°C**, expected to be **0°C at 7:00am.**