Name: _____ Date: _____

Communicate the Ideas

1. When Lance solved the expression (–2) × (4 + 5) + 3, his answer was 0.

   a) Solve the expression to see if Lance was right.

   (–2) × (4 + 5) + 3   Brackets first.

                                      Multiply.

                                      Add.

   b) Was Lance correct? Circle YES or NO.

   c) If not, what did Lance do wrong?

Lance's work:
(–2) × (4 + 5) + 3
= (–2) × 4 + 8
= –8 + 8
= 0

   _____

   _____

   _____

Check Your Understanding

Practise

2. Calculate using the order of operations.

   a)   (+30) ÷ (–10) + (–20) ÷ (–1)   Divide.

   = _____ + (–20) ÷ (–1)   Divide.

   = _____ + _____   Add.

   = _____

   b)   (–2) × [(+1) + (+2)] + (–7)   Brackets.

   = (–2) × _____ + (–7)   Multiply.

   = _____ + (–7)   Add.

   = _____

3. Calculate.

a) $(4 - 7) \times 2 + 12$

= _____ $\times 2 + 12$

= _____ $+ 12$

= _____

b) $-10 \div 5 + 3 \times (-4)$

= _____ $+ 3 \times (-4)$

= _____ $+$ _____

= _____

c) $3 \times (-4) - (+8) \div (-4)$

= _____ $- (+8) \div (-4)$

= _____ $-$ _____

= _____ $+ ($_____$)$

= _____

d) $(+4) \div (-2) + (+6)$

Apply

4. The temperature of a new freezer, before it is plugged in, is 22 °C. When it is plugged in, the temperature drops to –10 °C.

a) Find the temperature change.

Start temperature of 22 °C = (_____)

End temperature of –10 °C = (_____)

Temperature change = end temperature – start temperature

Sentence: _____

b) When the freezer is plugged in, the temperature inside drops by 4 °C per hour. How many hours does it take for the freezer to reach –10 °C?

Temperature drop of 4 °C = (–_____)

Number of hours = temperature change ÷ temperature drop

Sentence: _____

Name: _____   Date: _____

5. The daily low temperatures in Prince Rupert, British Columbia, were
–4 °C, +1 °C, –2 °C, +1 °C, and –6 °C. What is the mean temperature?

Add the integers.

Divide by the number of days.

_____ ÷ _____

= _____

The mean of the daily low temperatures was _____ °C.

6. Earth's surface temperature is 15 °C.
The temperature increases by 25 °C for each kilometre you travel below Earth's surface.

a) What is the temperature increase 1 km below the surface?

Sentence: _____

b) How much would you expect the temperature to increase 3 km below the surface?

3 km = (_____)

25 °C/km = (+_____)

_____ × _____ = _____

Sentence: _____