

Chapter Self-Test

1. The mean depth of the Atlantic Ocean is 3332 m. Its greatest depth is 8605 m. The mean depth of the Indian Ocean is 3890 m. Its greatest depth is 7450 m.

- Which ocean has the greater depth? How much greater is its depth?
- Which ocean has the greater difference between its mean depth and its greatest depth?

2. Draw a counter model and a number line model for each expression.

- a) -2×4 b) $-12 \div 6$

3. Calculate without using a calculator.

- $5 + (-8)$
- $-10 + (-3)$
- $-7 - 2$
- $-8 - (-4)$
- $-4 + (-5) + 6$
- $10 + (-15) + (-5)$

4. Calculate without using a calculator.

- $-2 \times (-5)$
- $-15 \div 5$
- $3 \times (-10) + 1$
- $(-3 - 2) \times (-2)$
- $6 \times [3 - (-7)] \div 2$
- $\frac{-54 + 18 \div (-2)}{(-3 - 4)(-1)}$

5. Determine the missing value in each equation.

- $-34 \times \blacksquare = 306$
- $28 \times \blacksquare = -336$
- $\blacksquare \times (-17) = 255$
- $\blacksquare \times 37 = -555$

6. Determine the missing values.

- $-32 \div \blacksquare = -8$
- $-105 \div \blacksquare = 35$
- $\blacksquare \div 8 = -7$
- $\blacksquare \div (-18) = 23$

7. Evaluate using a calculator.

- $35 + (-4) \times (-8) - 7$
- $18 \times [-3 - (8 \times (-5))]$
- $5 + [6 \div (-2)] - 4$
- $-12 \div 4 \times (-7) - (-2) + 10$
- $9 \times 3 \times (-2) + (-36) \div 12 - 1$

8. Marcus recorded this information about his stocks. Estimate how much money, in total, he has gained or lost.

Stock	A	B	C	D
Number of shares	50	70	100	25
Change in stock price per share (\$)	-2	+5	-3	-8

9. Which two integers have a product of -120 and a sum of -2 ?

10. How much greater or less is $5 + (-2)(-8)$ than $-8 + (-2)(5)$?

11. Clive's solution to a test question follows.

$$\begin{aligned} & 9 \div (-3) + 6 \times 2 - 7 \\ & = 9 \div (-3) + 6 \times (-5) \\ & = 9 \div (-3) + (-30) \\ & = (-3) + (-30) \\ & = -33 \end{aligned}$$

- What error did he make?
- Provide a correct solution.