

Integers and Fractions Check-In

Time: 25 min. 6 questions.

Instructions

Answer all six questions on your own paper, showing your work for the short answer and numeric questions. You may use a number line or fraction model to support your thinking. Calculators are not needed for this check-in.

Questions

- Which expression correctly rewrites the subtraction $8 - 5$ as an addition statement?
A) $8 + 5$
B) $8 + (-5)$
C) $-8 + 5$
D) $-8 + (-5)$
([Details](#))
- Kayla is mixing paint and needs to add $\frac{3}{4}$ of a litre of blue to $\frac{1}{6}$ of a litre of white. Find the total amount of paint, in litres, and show the step where you convert the fractions to a common denominator. ([Outcome](#))
- True or false: the product of two negative integers is a negative number. ([Details](#))
- A submarine is at a depth of -85 metres. It rises 32 metres, then dives another 14 metres. Compute the submarine's final depth, as a signed number in metres. ([Outcome](#))
- The temperature in Edmonton one morning is -7°C , and in Calgary it is 4°C . Which statement correctly compares the two temperatures using absolute value?
A) $|-7| < |4|$, so Edmonton is closer to zero
B) $|-7| > |4|$, so Edmonton is farther from zero
C) $|-7| = |4|$, so both cities are the same distance from zero
D) $|-7| > |4|$, so Edmonton is warmer than Calgary
([Details](#))
- Explain, using the example $\frac{2}{3} \times \frac{3}{4}$, why the product of two proper fractions is always less than either factor. ([Details](#))

Curriculum coverage

Question	Outcome alias
1	Details
2	Outcome
3	Details
4	Outcome
5	Details
6	Details

Answer key

1. B) $8 + (-5)$. Subtraction can always be rewritten as adding the opposite of the number being subtracted.
2. $\frac{11}{12}$ litre. Converting $\frac{3}{4}$ to $\frac{9}{12}$ and $\frac{1}{6}$ to $\frac{2}{12}$ gives a common denominator, and $\frac{9}{12} + \frac{2}{12} = \frac{11}{12}$.
3. False. The product of two negative integers is positive, not negative.
4. -67 metres. Starting at -85 , rising 32 gives -53 , and diving another 14 gives -67 .
5. B) $|-7| > |4|$, so Edmonton is farther from zero. Absolute value measures distance from zero regardless of sign, and 7 is greater than 4.
6. The product is smaller because multiplying by a fraction less than 1 means taking a part of a part: $\frac{2}{3} \times \frac{3}{4} = \frac{6}{12} = \frac{1}{2}$, which is less than both $\frac{2}{3}$ and $\frac{3}{4}$.