

Name:

Grade:

Score:

Worksheet #5



ORDERING INTEGERS

Learning goal: Students will apply the concept of ordering integers to real-life contexts such as temperatures, bank balances, heights, and game scores.

1. The mid-day temperatures in four deserts: Sahara = $+38^{\circ}\text{C}$, Antarctica = -25°C , Gobi = $+5^{\circ}\text{C}$, Atacama = $+15^{\circ}\text{C}$. Arrange in ascending order.

2. The results of four rounds of a card game (positive points are gains): Round 1 = $+100$, Round 2 = -150 , Round 3 = -50 , Round 4 = $+75$. Arrange the rounds in ascending order of outcome (worst to best round).

3. The depths of four roots measured from the surface: Plant A = -15 cm, Plant B = -8 cm, Plant C = -20 cm, Plant D = -5 cm. Arrange in descending order (closest to surface to deepest).

4. The yearly population change of four towns (in thousands): Town J = $+1.5$, Town K = -0.8 , Town L = -2.1 , Town M = $+0.5$. Arrange in descending order (fastest growing to fastest shrinking).

5. The water levels of four reservoirs (compared to normal level): Reservoir 1 = -4 m, Reservoir 2 = $+1$ m, Reservoir 3 = -10 m, Reservoir 4 = -2 m. Arrange in ascending order (driest to fullest).

6. The points scored in a trivia game with bonuses and penalties: Team Red = $+30$, Team Blue = -10 , Team Green = $+45$, Team Yellow = $+5$. Arrange in ascending order.

7. The weekly change in a student's savings: Week 1 = $+\text{₹}200$, Week 2 = $-\text{₹}50$, Week 3 = $+\text{₹}150$, Week 4 = $-\text{₹}100$. Arrange the weekly changes in ascending order (biggest loss to biggest gain).

Name:

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Worksheet #5(Answers)



ORDERING INTEGERS

Learning goal: Students will apply the concept of ordering integers to real-life contexts such as temperatures, bank balances, heights, and game scores.

1. The mid-day temperatures in four deserts: Sahara = $+38^{\circ}\text{C}$, Antarctica = -25°C , Gobi = $+5^{\circ}\text{C}$, Atacama = $+15^{\circ}\text{C}$. Arrange in ascending order.

Solution: $-25^{\circ}\text{C}, +5^{\circ}\text{C}, +15^{\circ}\text{C}, +38^{\circ}\text{C}$

2. The results of four rounds of a card game (positive points are gains): Round 1 = $+100$, Round 2 = -150 , Round 3 = -50 , Round 4 = $+75$. Arrange the rounds in ascending order of outcome (worst to best round).

Solution: -150 (R2), -50 (R3), $+75$ (R4), $+100$ (R1)

3. The depths of four roots measured from the surface: Plant A = -15 cm, Plant B = -8 cm, Plant C = -20 cm, Plant D = -5 cm. Arrange in descending order (closest to surface to deepest).

Solution: -5 cm (D), -8 cm (B), -15 cm (A), -20 cm (C)

4. The yearly population change of four towns (in thousands): Town J = $+1.5$, Town K = -0.8 , Town L = -2.1 , Town M = $+0.5$. Arrange in descending order (fastest growing to fastest shrinking).

Solution: $+1.5$ (J), $+0.5$ (M), -0.8 (K), -2.1 (L)

5. The water levels of four reservoirs (compared to normal level): Reservoir 1 = -4 m, Reservoir 2 = $+1$ m, Reservoir 3 = -10 m, Reservoir 4 = -2 m. Arrange in ascending order (driest to fullest).

Solution: -10 m (R3), -4 m (R1), -2 m (R4), $+1$ m (R2)

6. The points scored in a trivia game with bonuses and penalties: Team Red = $+30$, Team Blue = -10 , Team Green = $+45$, Team Yellow = $+5$. Arrange in ascending order.

Solution: -10 (Blue), $+5$ (Yellow), $+30$ (Red), $+45$ (Green)

7. The weekly change in a student's savings: Week 1 = $+\text{₹}200$, Week 2 = $-\text{₹}50$, Week 3 = $+\text{₹}150$, Week 4 = $-\text{₹}100$. Arrange the weekly changes in ascending order (biggest loss to biggest gain).

Solution: $-\text{₹}100$ (W4), $-\text{₹}50$ (W2), $+\text{₹}150$ (W3), $+\text{₹}200$ (W1)