

Review

Add.

1. $(+5) + (+6)$ 2. $(-3) + (+6)$
3. $(-7) + (-2)$ 4. $(-8) + (+5)$
5. $(+2) + (-4)$ 6. $(+3) + (-1)$
7. $(+9) + (-9)$ 8. $(-4) + (-4)$

Find the missing integer.

9. $(+6) + (\blacksquare) = +8$
10. $(-4) + (\blacksquare) = -6$
11. $(-7) + (\blacksquare) = -2$
12. $(\blacksquare) + (-2) = 7$
13. $(\blacksquare) + (+3) = +2$
14. $(\blacksquare) + (+5) = -4$

Simplify.

15. $(+7) + (+1) + (+2)$
16. $(-3) + (-4) + (+5)$
17. $(-6) + (-2) + (+7)$
18. $(+6) + (-5) + (-2)$

Subtract.

19. $(+7) - (+2)$ 20. $(+4) - (-3)$
21. $(-6) - (-2)$ 22. $(-3) - (+5)$
23. $(+1) - (+8)$ 24. $(-1) - (-8)$
25. $(-3) - (-3)$ 26. $0 - (-6)$

Find the missing integer.

27. $(+7) - (\blacksquare) = +1$ 28. $(+2) - (\blacksquare) = +5$
29. $(-5) - (\blacksquare) = -6$ 30. $(\blacksquare) - (-3) = +2$
31. $(\blacksquare) - (-2) = +8$ 32. $(\blacksquare) - (+6) = -4$

Multiply.

33. $(+4) \times (+3)$ 34. $(-3) \times (+2)$
35. $(-1) \times (-7)$ 36. $(+7) \times (-6)$
37. $(-8) \times (-9)$ 38. $(+2) \times (+4)$
39. $(-5) \times (-5)$ 40. $(-4) \times 0$

Find the missing integer.

41. $(+7) \times (\blacksquare) = +42$
42. $(-4) \times (\blacksquare) = -12$
43. $(\blacksquare) \times (+2) = -8$
44. $(\blacksquare) \times (-3) = +9$
45. $(-9) \times (\blacksquare) = +27$
46. $(\blacksquare) \times (-1) = -12$

Divide.

47. $(+20) \div (+4)$ 48. $(-18) \div (-2)$
49. $(-15) \div (+5)$ 50. $(+14) \div (-2)$
51. $(-16) \div (-8)$ 52. $(-21) \div (+3)$
53. $(+10) \div (+5)$ 54. $(+35) \div (-7)$

Find the missing integer.

55. $(-32) \div (\blacksquare) = -8$
56. $(+72) \div (\blacksquare) = -9$
57. $(\blacksquare) \div (-3) = +4$
58. $(\blacksquare) \div (+2) = -7$
59. $(+14) \div (\blacksquare) = -14$

Simplify.

60. $5 + (-3) + (-2)$
61. $(-6) \times 2 + 8$
62. $10 + (-3)(-4)$
63. $15 \div (-5) + 6 - (-1)$
64. $3 \times (-2) + 4 \times (-3)$

Add brackets to each expression so that its value is -2.

65. $(-1) \times (-7) + 3^2$ 66. $4^2 - 10 \div 2 - 5$
67. The ground temperature at an airport was 10°C . The temperature dropped 5°C for every 1000 m above the ground. What was the temperature outside an airplane that took off from this airport and climbed to 5000 m?
68. The melting point of oxygen is -218°C . The boiling point of oxygen is 35°C higher. What is the boiling point of oxygen?

69. Hockey players can be rated with integers. Paul was on the ice when his team scored 15 goals and the other teams scored 20 goals. His rating is found from

$$\text{goals for} - \text{goals against} \\ (+15) - (+20) = -5$$

a) Rate the hockey players.

Name	Goals For	Goals Against
Fragrino	+ 38	+ 42
Chan	+ 59	+ 41
George	+ 26	+ 24
Petty	+ 34	+ 55
Lloyd	+ 45	+ 51

b) Use the ratings to order the players from best to worst.

70. One winter, the lowest temperatures in some cities across Canada were as follows.

City	Lowest Temperature (°C)
St. John's	- 24
Halifax	- 22
Montreal	- 24
Toronto	- 20
Winnipeg	- 35
Edmonton	- 36
Vancouver	- 14

Find the average of these temperatures.

71. An aircraft has an altitude of 10 200 m. It descends to 8450 m in 5 min. Calculate its change in altitude in metres per minute.

72. a) Mount Everest has an elevation of 8863 m. Death Valley has an elevation of -86 m. What is the difference in these elevations?

b) The surface of the Dead Sea has an elevation of -400 m. Which is higher, the Dead Sea or Death Valley, and by how much?

Group Decision Making

Researching Travel Industry Careers

1. Brainstorm with the whole class to decide the careers you would like to investigate. They might include careers like travel agent, airline pilot, bus driver, or mechanic. As a class, choose six careers.

2. Go to home groups.

1	2	3	4	5	6	1	2	3	4	5	6
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Home Groups

1	2	3	4	5	6	1	2	3	4	5	6
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As a group, decide on the career each student will investigate. Decide as a group the questions you want answered.

3. Research your assigned career individually.

4. Form an expert group with students assigned the same career as you.

1	1	1	1	2	2	2	2	3	3	3	3
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Expert Groups

4	4	4	4	5	5	5	5	6	6	6	6
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Combine the information from all members of the expert group.

5. In your expert group, prepare a report on the assigned career. Include a description of how the career makes use of math. The report can take any form the group chooses.

6. In your expert group, evaluate the group process and the report. Identify what worked well and what you would do differently next time.