



SKILL 7: Division of Integers

In the previous lesson you learned the rules for deciding what sign to use when you multiply two integers. The rules for finding the quotient of two integers match the rules for finding the product.

	<u>Signs of Integers</u>	<u>Answer is:</u>
Multiply or Divide	Same sign	→ +
	Different signs	→ -

If the number you are dividing is 0, the quotient is 0.
You cannot use 0 as a divisor.

Example

Divide.

- a. $18 \div (-6) = -3$ The integers have different signs, so the quotient is negative.
- b. $-40 \div (-5) = 8$ The integers have the same sign, so the quotient is positive.
- c. $0 \div (-4) = 0$ The number being divided is 0, so the quotient is 0.
- d. $-49 \div 7 = -7$ The integers have different signs, so the quotient is negative.

Guided Practice

Tell whether the quotient is positive, negative, or 0. Then divide.

1. $-35 \div 7$

The integers have different signs.

The quotient is _____.

So, $-35 \div 7 =$ _____.

2. $-54 \div (-9)$

The integers have the same sign.

The quotient is _____.

So, $-54 \div (-9) =$ _____.

3. $100 \div (-2)$

The integers have different signs.

The quotient is _____.

So, $100 \div (-2) =$ _____.

4. $0 \div (-8)$

The integer being divided is 0.

The quotient is _____.

So, $0 \div (-8) =$ _____.

SKILL 7: Practice

Tell whether the quotient is positive, negative, or 0. Then divide.

1. $72 \div (-8)$

$$\underline{\hspace{2cm}}$$

$$72 \div (-8) = \underline{\hspace{2cm}}$$

2. $-45 \div (-9)$

$$\underline{\hspace{2cm}}$$

$$-45 \div (-9) = \underline{\hspace{2cm}}$$

3. $35 \div 5$

$$\underline{\hspace{2cm}}$$

$$35 \div 5 = \underline{\hspace{2cm}}$$

4. $0 \div 2$

$$\underline{\hspace{2cm}}$$

$$0 \div 2 = \underline{\hspace{2cm}}$$

5. $-42 \div 7$

$$\underline{\hspace{2cm}}$$

$$-42 \div 7 = \underline{\hspace{2cm}}$$

6. $-36 \div (-6)$

$$\underline{\hspace{2cm}}$$

$$-36 \div (-6) = \underline{\hspace{2cm}}$$

Divide.

7. $-8 \div (-4) = \underline{\hspace{2cm}}$

8. $-20 \div 4 = \underline{\hspace{2cm}}$

9. $-6 \div 2 = \underline{\hspace{2cm}}$

10. $-12 \div 3 = \underline{\hspace{2cm}}$

11. $-5 \div 5 = \underline{\hspace{2cm}}$

12. $-18 \div 3 = \underline{\hspace{2cm}}$

13. $-45 \div (-5) = \underline{\hspace{2cm}}$

14. $-4 \div (-1) = \underline{\hspace{2cm}}$

15. $-48 \div 6 = \underline{\hspace{2cm}}$

16. $-6 \div (-2) = \underline{\hspace{2cm}}$

17. $0 \div (-5) = \underline{\hspace{2cm}}$

18. $12 \div (-6) = \underline{\hspace{2cm}}$

19. $56 \div 8 = \underline{\hspace{2cm}}$

20. $-35 \div (-7) = \underline{\hspace{2cm}}$

21. $48 \div (-8) = \underline{\hspace{2cm}}$

22. $72 \div (-8) = \underline{\hspace{2cm}}$

23. $-45 \div (-9) = \underline{\hspace{2cm}}$

24. $-35 \div 5 = \underline{\hspace{2cm}}$

25. $-42 \div 7 = \underline{\hspace{2cm}}$

26. $0 \div 2 = \underline{\hspace{2cm}}$

27. $-36 \div (-6) = \underline{\hspace{2cm}}$

28. $18 \div (-2) = \underline{\hspace{2cm}}$

29. $-20 \div (-20) = \underline{\hspace{2cm}}$

30. $0 \div (-16) = \underline{\hspace{2cm}}$

Solve.

31. The total change in the price of a share of stock over a 5-day period was $-\$15$. If the price went down by the same amount each day, what was the change in price each day? _____

32. Mario's weight increased by 18 pounds over 3 years. If the increase was the same each year, how much weight did Mario gain each year? _____



33. Find $-64 \div (-8)$.

A -8

C 6

B -6

D 8

Skill 7

34. Find $6 - (-10)$.

F -16

H 4

G -4

J 16

Skill 5