41. Write this fraction as a percent.

$$\frac{659}{100}$$

a. 659% b. 653% c. 6.59% d. 6.57%

42. Find 274% of 70.

a. 39.14 b. 1918 c. 19.18 d. 191.8

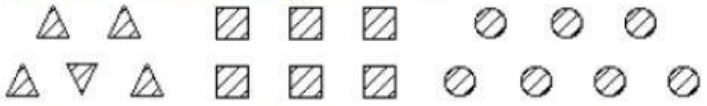
43. Calculate the sale price of this item before taxes.
30% off a bike for $397.95

a. $179.08 b. $119.39 c. $238.77 d. $278.57

44. The sales taxes are 14%. Find the tax paid for a pair of running shoes that costs $115.

a. $16.10 b. $161.00 c. $1.22 d. $2.25

45. What is the ratio of triangles to circles?



a. 6:5 b. 5:6 c. 7:5 d. 5:7

46. The ratio of boys to girls in a class is 5 to 6.
What is the ratio of boys to students in the class?

a. 6 to 30 b. 6 to 11 c. 5 to 30 d. 5 to 11

47. The ratios 40:■ and 8:7 are equivalent. Find the missing number.

a. 42 b. 35 c. 32 d. 55

48. Find the value of the variable.
$18:12 = 30:w$

a. 28 b. 40 c. 56 d. 20

49. One hundred nautical miles is about 185 km.
About how many kilometres is 120 nautical miles?

a. 65 km b. 222 km c. 185 km d. 2220 km

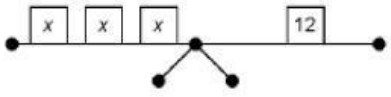
50. At the market, 5 cans of soup cost $4.75. What is the cost of 1 can of soup?

a. 97¢ b. $1.90 c. 96¢ d. 95¢

51. You pay $2.80 for 7 bagels. Find the unit cost for these bagels.

a. $0.47 per bagel
b. $0.40 per bagel
c. $0.50 per bagel
d. $0.20 per bagel

52. Use this balance-scales model to solve for x.



a. −4 b. 9 c. 15 d. 4

LIVEWORKSHEETS

53. Solve this equation. $3x + 11 = 23$

a. 9 b. 4 c. 11 d. –4

54. Write an equation for this situation.
Patricia has p posters. She sold 8 and has 18 left.

a. $p + 18 = 8$ c. $p + 8 = 18$
b. $p - 8 = 18$ d. $p = 18 - 8$

55. Solve this equation. $4y + 8 = 36$

a. 1 b. 3 c. 7 d. 24

56. Solve this equation. $\frac{x}{-6} = -9$

a. 54 b. –54 c. –15 d. –3

57. Solve this equation. $9 + \frac{d}{4} = 23$

a. 83 b. –13 c. 56 d. 10

58. Solve this equation. $\frac{t}{-2} - 7 = 16$

a. –46 b. –25 c. 30 d. 21

59. Expand. $4(x + 7)$

a. $4x + 7$ b. $4x + 28$ c. $4 + x + 7$ d. $28x$

60. Expand. $-6(5 - x)$

a. $-30 + 6x$ b. $-30 - 6x$ c. $-11 - 6x$ d. $-30 - x$

61. Solve this equation: $-5(a + 4) = 15$

a. 1 b. –7 c. 40 d. 7

62. The ordered pair $(5, \ )$ is in the linear relation with equation $y = -2x + 8$.
Find the missing number in the ordered pair.

a. 1 b. 11 c. –2 d. –18

64. Which relations have graphs that are lines going up to the right?

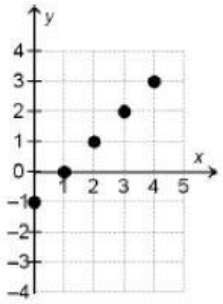
i) $y = -5x + 3$
ii) $y = 5x + 3$
iii) $y = -5x - 3$
iv) $y = 5x - 3$

a. ii and iv b. i and iii c. ii d. i, ii, and iv

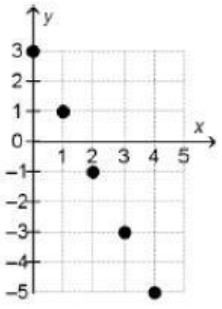
LIVEWORKSHEETS

63. Graph the relation $y = -2x + 3$ for integer values of x from 0 to 4.

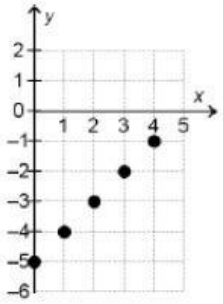
a.



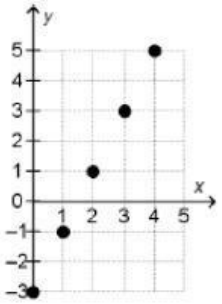
c.



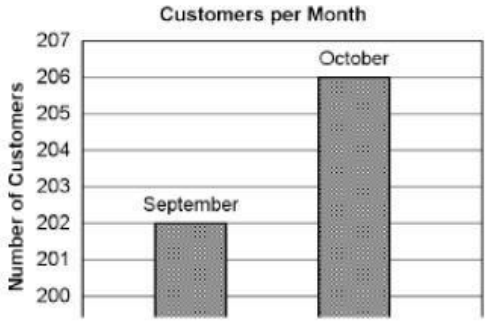
b.



d.



65. This graph shows the number of customers buying from a store in September and October.



Is the graph misleading? If it is misleading, explain why.

a. Yes, the bars do not touch.
b. No, the graph is not misleading.
c. Yes, the intervals on the vertical axis between 200 and 207 are not even.
d. Yes, the graph exaggerates the difference in the number of customers between September and October.

66. A clothing manufacturer offers 2 different styles of jeans, relaxed fit and regular fit, in 5 different colours. How many combinations of a style and a colour are possible?

a. 4 b. 8 c. 7 d. 10

LIVEWORKSHEETS

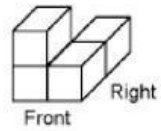
67. A coin is tossed and a regular 6-sided die labelled 1 to 6 is rolled.
What is the probability of tossing a head and rolling a 5?

a. $\frac{1}{12}$ b. $\frac{1}{4}$ c. $\frac{2}{3}$ d. $\frac{1}{6}$

68. A red die, a blue die, and a green die are rolled. Each is a regular 6-sided die labelled 1 to 6.
What is the probability of rolling an even number on each die?

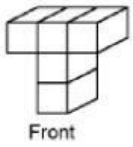
a. $\frac{1}{6}$ b. $\frac{1}{216}$ c. $\frac{1}{2}$ d. $\frac{1}{8}$

69. This object is made using 4 linking cubes. Draw the right side view of the object.



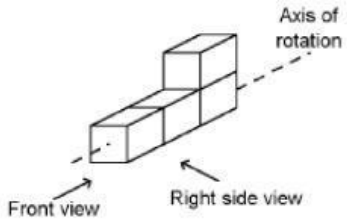
a. b. c. d.

70. Draw the side view of this object.



a. b. c. d.

71. This object is built using 4 linking cubes.
The object is rotated vertically 90° clockwise about the axis shown.
Draw the right side view of the object after the rotation.



a. b. c. d.

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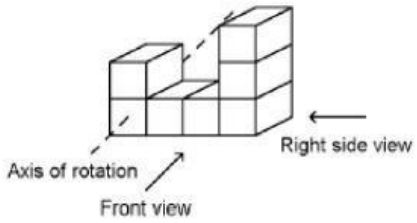
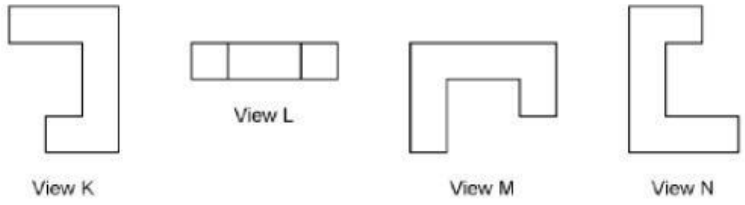
72. This object is built using 7 linking cubes.
The object is rotated vertically 90° clockwise about the axis shown.

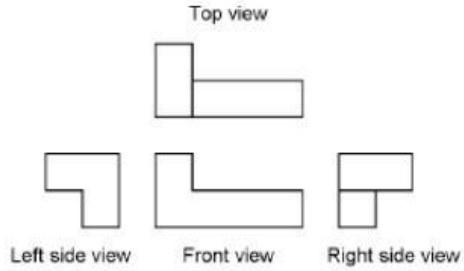


Which view is the front view of the object after the rotation?

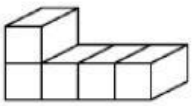


a. View K b. View L c. View M d. View N

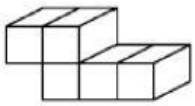
73. These are views of an object built using linking cubes. Sketch the object.



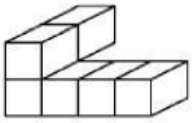
a.



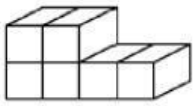
c.



b.

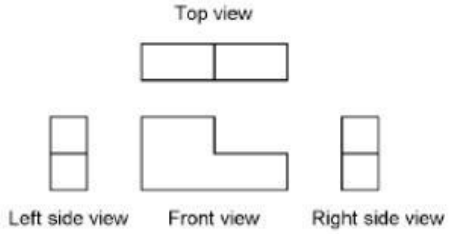


d.

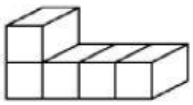


LIVEWORKSHEETS

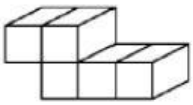
74. These are views of an object built using linking cubes. Sketch the object.



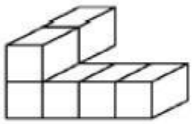
a.



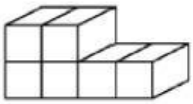
c.



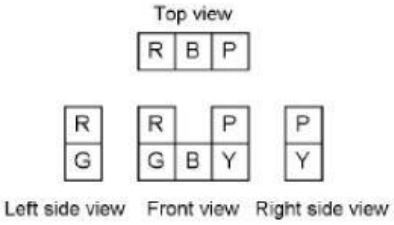
b.



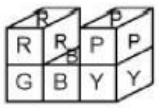
d.



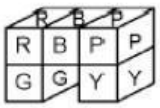
75. These are views of an object built using linking cubes.
The letters refer to the colours of the cubes.
R = red, B = blue, G = green, Y = yellow, and P = purple
Sketch the object and label the colours.



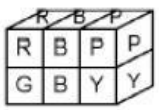
a.



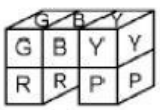
c.



b.

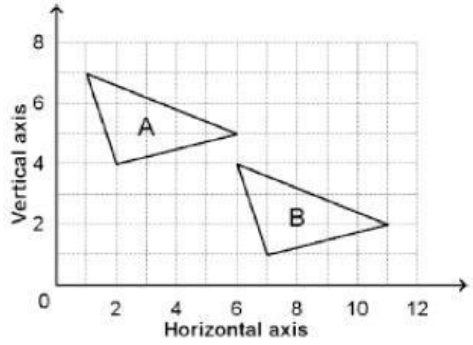


d.



LIVEWORKSHEETS

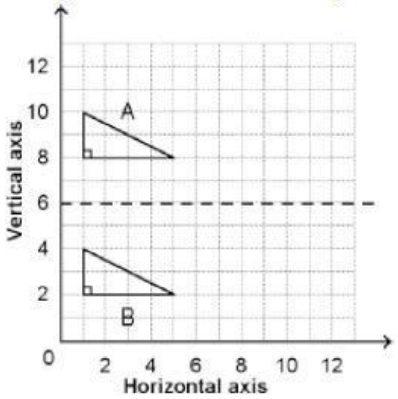
76. Triangle B is a translation image of Triangle A. Describe the translation.



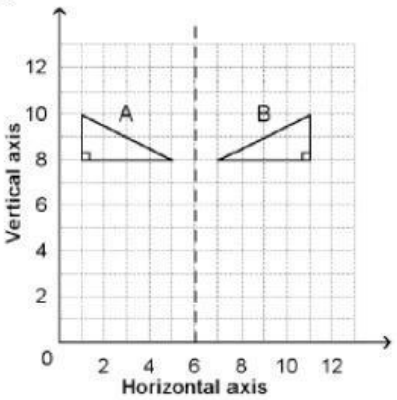
a. 5 units right and 3 units down
b. 5 units left and 3 units up
c. 3 units right and 5 units down
d. 3 units left and 5 units up

77. Triangle B is the image of Triangle A after a reflection in a vertical line through the point (6, 0). Which diagram shows the correct position of Triangle B?

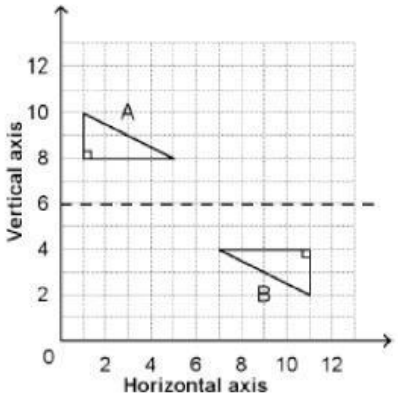
a.



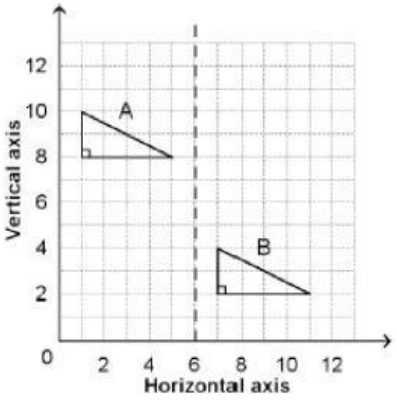
c.



b.

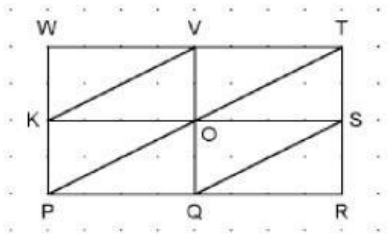


d.



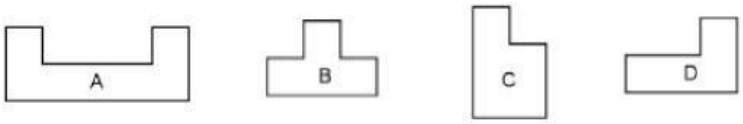
LIVEWORKSHEETS

78. Triangle SOQ is a transformation image of Triangle KOV. Describe the transformation.



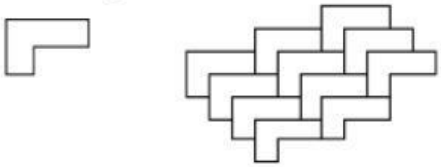
a. 90° clockwise rotation about O
b. Reflection in the line PT
c. 180° rotation about O
d. Translation 4 units right and 2 units down

79. Which shape does not tessellate?



a. Shape A b. Shape B c. Shape C d. Shape D

80. This L-shape below is used to create the design on its right.



Identify the transformations used.
a. Translations only
b. Reflections only
c. Rotations only
d. None of these

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