

Name: ..... Class: .....

Divide fractions and mixed numbers: word problems.



1. Frank was given punishment at school for disturbing in class. He completes  $\frac{3}{4}$  of his punishment in  $5\frac{1}{2}$  hours. How many hours does he need to finish the whole punishment? Write your answer as a mixed number.

2. John want to fill some bags with sand to block water from entering his farm. He has  $5\frac{1}{2}$  loads of sand. If he puts  $\frac{2}{3}$  of the load into each bag, how many bags can he fill?



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1. Frank was given punishment at school for disturbing in class. He completes  $\frac{3}{4}$  of his punishment in  $5\frac{1}{2}$  hours. How many hours does he need to finish the whole punishment? Write your answer as a mixed number.

if frank completes  $\frac{3}{4}$  of his punishment in  $5\frac{1}{2}$  hours

he will complete the punishment in  $5\frac{1}{2} \div \frac{3}{4}$

$$5\frac{1}{2} \div \frac{3}{4} = \frac{(5 \times 2) + 1}{2} \div \frac{3}{4} = \frac{11}{2} \times \frac{4}{3}$$

$$= \frac{11}{2} \times \frac{4}{3} = \frac{44}{6}$$

$$= \frac{44 \div 2}{6 \div 2} = \frac{22}{3} = 3 \overline{)22} \begin{array}{r} 7 \\ - 21 \\ \hline 1 \end{array} = 7\frac{1}{3}$$

He needs  $7\frac{1}{3}$  hours to finish the whole punishment.

2. John want to fill some bags with sand to block water from entering his farm. He has  $5\frac{1}{2}$  loads of sand. If he puts  $\frac{2}{3}$  of the load into each bag, how many bags can he fill?

to solve this problem, we need to divide  $5\frac{1}{2}$  loads of sand by  $\frac{2}{3}$

$$5\frac{1}{2} \div \frac{2}{3}$$

$$5\frac{1}{2} \div \frac{2}{3} = \frac{(5 \times 2) + 1}{2} \div \frac{2}{3} = \frac{11}{2} \times \frac{3}{2}$$

$$= \frac{11}{2} \times \frac{3}{2} = \frac{33}{4}$$

$$\frac{33}{4} = 4 \overline{)33} \begin{array}{r} 8 \\ - 32 \\ \hline 1 \end{array} = 8\frac{1}{4}$$

Therefore, he can fill  $8\frac{1}{4}$  bags with  $5\frac{1}{2}$  loads of sand

